DOCUMENT RESUME

ED 436 297 PS 028 152

TITLE	Nurturing Fatherhood: Improving Data and Research on Male Fertility, Family Formation and Fatherhood. Federal Interagency Forum on Child and Family Statistics, 1998.
INSTITUTION	Federal Interagency Forum on Child and Family Statistics, Washington, DC.
SPONS AGENCY	Ford Foundation, New York, NY.; Kaiser Foundation, Oakland, CA.; Annie E. Casey Foundation, Baltimore, MD.
PUB DATE	1998-06-00
NOTE	456p.
PUB TYPE	Collected Works - General (020) -- Information Analyses (070)
EDRS PRICE	MF01/PC19 Plus Postage.
DESCRIPTORS	Birth; Child Rearing; Contraception; Data Collection; Demography; Family (Sociological Unit); *Fathers; Literature Reviews; *Males; *Parent Child Relationship; Pregnancy; Public Policy; Research Design; *Research Methodology; *Research Needs; Research Opportunities; Research Utilization; Sexuality; Social Influences; Social Values; State of the Art Reviews
IDENTIFIERS	*Family Formation; *Fertility; Fertility Values; Relationship Termination

ABSTRACT

Reflecting a convergence of public policy and scientific interest in the role of fathers in families, and recognizing the crucial need to examine the demographic and social processes bringing men into fathering roles and influencing their role enactment, this report summarizes presentations and recommendations of the Conference on Fathering and Male Fertility, held in March 1997. The report presents information on the state of data collection and research on male fertility, family formation, and fatherhood, based on a multi-year analysis by the Federal Interagency Forum on Child and Family Statistics. Chapter 1 provides background information, summarizes findings, and presents data collection and research problems. Chapter 2 summarizes presentations, discussions, and recommendations from the March Conference on Fathering and Male Fertility: Improving Data and Research. Chapter 3 examines determinants and consequences of male fertility and family formation. Chapter 4 identifies the conceptual, data, and policy issues that must be addressed to understand social fatherhood and paternal involvement. Chapter 5 reviews the methodological issues and changes that must be addressed if data and research are to be improved. Chapter 6 summarizes opportunities to improve federal data collection and research that have been identified for the Federal Interagency Forum on Child and Family Statistics to consider, and provides information on the steps being taken by Forum member agencies to turn opportunities into realities. (The report's six appendices provide information supporting each of the chapters; five of the supporting appendices contain references.) (KB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 436 297

Federal Interagency Forum on Child and Family Statistics 1998

Nurturing Fatherhood:
Improving Data and Research on Male Fertility, Family Formation and Fatherhood

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PS 028152

Forum on Child and Family Statistics

BEST COPY AVAILABLE

NURTURING FATHERHOOD:
Improving Data and Research on Male Fertility, Family Formation and Fatherhood

June, 1998

Federal Interagency Forum on Child and Family Statistics

The Federal Interagency Forum on Child and Family Statistics was founded in 1994. Executive Order no. 13045 formally established it in April 1997, to foster coordination and collaboration in the collection and reporting of Federal data on children and families. Members of the Forum as of Spring 1998 are listed below.

Department of Agriculture
Food and Nutrition Service
Office of Analysis and Evaluation
Alberta C. Frost
Director

Department of Commerce
Bureau of the Census
Nancy Gordon
Associate Director for
Demographic Programs

Department of Defense
Office of Undersecretary of Defense
Carolyn H. Becraft
Deputy Assitant Secretary of Defense

Department of Education
National Center for Education Statistics
Pascal D. Forgione, Jr.
Commissioner

Department of Health and Human Services
Administration for Children and Families
Olivia Golden
Assistant Secretary for Children and Families

Agency for Health Care Policy and Research
Lisa Simpson
Deputy Administrator

Maternal and Child Health Bureau
Audrey Nora
Director

National Center for Health Statistics
Edward Sondik
Director

National Institute of Child Health and
Human Development
Duane Alexander
Director

Office of the Assistant Secretary for Planning
and Evaluation
Patricia Ruggles
Deputy Assistant Secretary for Human
Services Policy

Department of Housing and Urban Development
Office of Policy Development and Research
Paul Leonard
Acting Assistant Secretary

Department of Justice
Bureau of Justice Statistics
Jan Chaiken
Director

National Institute of Justice
Sally T. Hillsman
Deputy Director

Office of Juvenile Justice and Delinquency
Prevention
Shay Bilchik
Administrator

Department of Labor
Bureau of Labor Statistics
Katharine Abraham
Commissioner

Women's Bureau
Ida Castro
Acting Director

National Science Foundation
Science Resources Studies Division
Jeanne E. Griffith
Director

Office of Management and Budget
Statistical Policy Office
Katherine K. Wallman
Chief Statistician

TABLE OF CONTENTS

Foreword i

Preface and Acknowledgments iii

Chapter 1: Introduction 1

Chapter 2: Summary of the Findings and Recommendations of the Conference on Fathering and Male Fertility: Improving Data and Research . . . 13

Chapter 3: Male Fertility and Family Formation: Research and Data Needs on The Pathways to Fatherhood 45

Chapter 4: Social Fatherhood And Paternal Involvement: Conceptual, Data, and Policymaking Issues 99

Chapter 5: Methodological Issues in Improving Data on Fathers 175

Chapter 6: Opportunities to Improve Data and Research on Fatherhood 213

APPENDICES

APPENDIX A: *Supporting Material for Chapter 1*
Conference Agenda and Working Group Members 227

APPENDIX B: *Supporting Material for Chapter 3*
Integrating Theoretical Perspectives on Gender, Union Formation and Fertility 231

APPENDIX C: *Supporting Material for Chapter 3*
The Meaning of Fatherhood for Men 249

APPENDIX D: *Supporting Material for Chapter 3*
Fertility Motivation, Decision Making, and Intention to Engage in Sex, Contraception, Pregnancy, Abortion and Birth 277

APPENDIX E: *Supporting Material for Chapter 3*
Data and Research Needs Concerning Union Formation and Dissolution . . 295

APPENDIX F: *Supporting Material for Chapter 3*
Male Fertility in Relation to Union Formation And Dissolution 327

APPENDIX G: *Supporting Material for Chapter 3*
The Biological And Health Aspects of Male Fertility: Implications For Use of Reproductive Health Care Services 365

APPENDIX H: *Supporting Material for Chapter 3*
Data Needs Regarding Male Reproductive Health and Reproductive Health Services 377

APPENDIX I: *Supporting Material for Chapter 3*
Indicators of Male Fertility, Family Formation, and Sexual Behavior 383

APPENDIX J: *Supporting Material for Chapter 4*
Contructs Used in Data Collection 399

APPENDIX K: *Supporting Material for Chapter 5*
Nonresident Fathers: What We Know and What's Left to Learn? 431

APPENDIX L: *Supporting Material for Chapter 5*
New Directions for Exploring Fathers' Attachment to Households 445

APPENDIX M: *Supporting Material for Chapter 6*
Contacts for this Report 453

THE VICE PRESIDENT
WASHINGTON

May, 1998

I am pleased to extend my congratulations to the Federal Interagency Forum on Child and Family Statistics on the publication of *NURTURING FATHERHOOD: Improving Data and Research on Male Fertility, Family Formation and Fatherhood.* This report to the policy, information collection and research communities will have a lasting influence on efforts to understand and foster fathers' active participation in the lives of their children.

In 1994, when I led "Family Re-Union 3: The Role of Men in Children's Lives" in Nashville, Tennessee, little did I realize the great outpouring of time, talent and commitment that soon would be dedicated to the issue of fatherhood. Program practitioners, community leaders, local, state and federal policy makers, and the public and private research community have taken very seriously research findings that the well-being of children is enhanced by the presence of caring and involved fathers and that father absence can have lasting detrimental effects on children's lives.

The Federal Interagency Forum has provided outstanding leadership in developing a public-private partnership to implement President Clinton's request that federal agencies do more to support the role of fathers in families and specifically that fathers be incorporated in government-initiated research regarding children and their families. The publication of *NURTURING FATHERHOOD* reflects the successful completion of the Forum's efforts to understand what we know through existing research on fathers and families. It is also the beginning of new opportunities to significantly increase our knowledge about fatherhood and the relationship of fertility and family formation to the way men experience fathering.

I believe that all children can benefit from the involved presence of a father in their lives. I commend the member agencies of the Forum, the public and private research community and the public and private funders who have made such an outstanding contribution to our understanding of what we know about fathers' involvement in the lives of children and to what more we need to know. Working together I know that we will make a better world for all of America's children.

Sincerely,

Al Gore

AG/lmm

PRINTED ON RECYCLED PAPER

Preface and Acknowledgments

This report summarizes the presentations and recommendations of the Conference on Fathering and Male Fertility: Improving Data and Research, sponsored by the National Institute of Child Health and Human Development (NICHD), the Federal Interagency Forum on Child and Family Statistics, and the NICHD Family and Child Well-being Research Network.

The findings and recommendations presented at the Conference on Fathering and Male Fertility represent the cumulative effort of more than a hundred researchers, policy analysts, and public officials who, over the course of year, thought deeply and creatively about how to improve the information available to society on fathers. This report is being widely disseminated to those agencies of the federal government that conduct and/or fund research on children and families, to the broader research community, to policy makers, to the philanthropic world, and to the media.

The conference, which took place on March 13 and 14, 1997, was the culmination of a remarkable year-long effort to develop an action agenda to improve federal data and research on fathers and on male fertility, involving many of the nation's leading scholars and researchers within and outside of the federal government between March 1996 and March 1997.

Prior to the Conference in March of 1997, a Town Meeting on data needs for policy was sponsored by the Forum and two Conferences were sponsored by the National Institutes for Health and the NICHD Family and Child Well-Being Research Network. One of the conferences focused on qualitative and clinical research and how it could be integrated with data from large scale surveys. The second conference invited scholars from several disciplines to present empirical work, primarily from large scale studies.

Three working groups were also established and charged with developing specific recommendations to improve data and research on fatherhood. The working groups looked specifically at 1) the conceptualization of fatherhood, 2) issues of family formation and male fertility, and 3) methodological challenges. The working groups presented their findings and recommendations at the March 1997 conference. Each group's report is presented in this volume.

A fourth working group was charged with examining the trade-offs and targets of opportunity to improve the federal statisticals system's capacity to gather data on fatherhood based on information from all the review activities and developing a report to the Federal Interagency Forum on Child and Family Statistics. These recommendations were presented to the Forum on October of 1997.

The many individuals whose hard work and enthusiasm made this entire effort possible reflect the strength that building a public/private partnership brings to a complex and multifaceted project. The contributions of the following people are much appreciated:

The NICHD Family and Child Well-being Research Network: Kristin Moore (Child Trends, Inc.), H. Elizabeth Peters (Cornell University), Desmond K. Runyan (University of North Carolina), Jeanne Brooks-Gunn (Columbia University), Greg Duncan (University of Michigan), Jay Teachman (Washington State University), and Arland Thornton (University of Michigan).

Conference Coordination Committee: Christine Bachrach, Jeffrey Evans, Judy Whalen, and Marie Bristol, (NICHD), Kristin Moore and Angela Greene (Child Trends, Inc.), Freya Sonenstein (Urban Institute), Linda Mellgren (ASPE), Anne Benson (Office of Child Support Enforcement/DHHS), Wendy Taylor (OMB), and Gesine Hearn (NICHD Network).

The leadership of the working groups: Randal D. Day, V. Jeffery Evans, and Michael Lamb, co-chairs of the Working Group on Conceptualizing Male Parenting; Christine Bachrach and Freya Sonenstein, co-chairs of the Male Fertility and Family Formation Working Group; Andrew Cherlin and Jeanne Griffith, co-chairs of the Working Group on the Methodology of Research on Fathers; and Linda Mellgren and Wendy Taylor, co-chairs of the Working Group on Trade-Offs and Targets of Opportunity.

The National Center on Fathers and Families/University of Pennsylvania: Vivian Gadsden. The authors of the town meeting and conferences summary report: Angela Dungee Greene, Carol Emig and Gesine Hearn. For managing arrangements and logistics for the meetings and conferences: Gesine Hearn (NICHD Family and Child Well-Being Research Network), Fanette Jones and Sonia Subaran (Child Trends, Inc), Sylvia Ellison (NICHD), Anne Benson (OCSE/HHS), and Linda Mellgren (ASPE).

Finally, special thanks go to the Ford Foundation, the Kaiser Family Foundation, and the Annie E. Casey Foundation for their generous contributions to this effort. These private funders worked in partnership with federal agencies to defray conference costs and the costs of preparing and disseminating meeting summaries.

And last, but not least, a very special thank-you to Nancy Hoit, Lisa Mallory, and Beverly Godwin of Vice President Gore's National Partnership for Reinventing Governmentfor their enthusiastic support and to Duane Alexander, Director of NICHD and Ann Rosewater, Counselor to the Secretary and former Deputy Assistant Secretary for Human Services Policy, ASPE and Chair of the DHHS Fathers Work Group, for their leadership and willingness to devote staff resources to the effort.

Chapter 1:

Introduction

Chapter One prepared by The Working Group on Target of Opportunity and Trade-Offs

Linda Mellgren and Wendy Taylor (co-chairs)

INTRODUCTION

Purpose

The Federal Interagency Forum on Child and Family Statistics was founded in 1994 and formally established by Executive Order in April 1997 to foster the coordination and integration of the collection and reporting of data on children and families. The Forum's first publication, *America's Children: Key National Indicators of Well-Being,* has provided an easy-to-understand portrait of the well-being of our Nation's children, that brings together data on children from a variety of federal agencies and sources. The publication of *Nurturing Fatherhood: Improving Data and Research on Male Fertility, Family Formation and Fatherhood,* demonstrates that working together in public-private partnerships can greatly increase our understanding of the complex family and community context in which children grow and develop.

The purpose of this volume is to share with federal statistical agencies, federal and state policy-makers and the broad family and child well-being research community the results of a multi-year process by the Forum to review and analyze the state of data collection and research on male fertility, family formation, and fathering. This review considered what data has been collected about male fertility, family formation, and fathering, the quality of that data, what has have learned from the analysis of the data, what theoretical and empirical work remains to be done, and how the federal government can best build on current knowledge to expand our understanding of these complex areas of human behavior. It is believed that the results of this review will be a strong foundation for additional data collection and research within the public and private sectors.

This volume uses the term fathering in its broadest sense; it covers the activities and behaviors of a biological father toward his child and the actions and activities that lead to and are related to becoming a father--male fertility and family formation. This volume and the review upon which this volume is based focused primarily on data collection and research on biological fathers; however, research efforts should not ignore the importance and significance of other fathering relationships. Stepfathers, grandfathers, maternal uncles and next-door neighbors all may "father" a child. Whether such fathering is an adequate substitute for the care and commitment of a biological father is one of the questions for research efforts to address.

Background

In January of 1996, the Data Collection Committee recommended that the Forum undertake as one of its first agenda items the exploration of the adequacy of research and data collection on the issue of fatherhood. This recommendation reflected a fortunate convergence of policy and scientific interest in the topic. In June of 1995, President Clinton issued a memorandum to the Heads of Executive Departments and Agencies on supporting the role of fathers in families. In that memorandum, the President asked for a review of agency activities in four areas. These areas were:

- Ensure, where appropriate, and consistent with program objectives, that programs seek to engage and meaningfully include fathers.
- Proactively modify those programs that were designed to serve primarily mothers and children, where appropriate and consistent with program objectives, to explicitly include fathers and strengthen their involvement with their children.
- Include evidence of father involvement and participation, where appropriate, in measuring the success of programs.
- Incorporate fathers, where appropriate, in government-initiated research regarding children and their families.

The last two areas were directly related to the information collection and research activities of the federal government.

Unrelated to this governmental review, but in the initial planning stages, were two research conferences on issues related to families and fathers to be held in 1996. Two branches within the National Institute for Child Health and Human Development (NICHD), were planning a conference to review findings on family functioning from their small scale clinical research. The NICHD Family and Child Well-Being Research Network was also planning a conference to explore what was known and what could be learned about fathers and their impact on child development from large scale national survey data. Using the Presidential mandate and the already planned conferences as building blocks for a comprehensive review, the Data Collection Committee outlined for the Forum a series of activities designed to improve the capacity of the federal statistical system to conceptualize, measure, and gather information from men about their fertility and roles as fathers. These activities and related meetings would culminate with a report to the Forum.

Four major meetings were held as a part of this review.

The Town Meeting on Fathering and Male Fertility

Conference on Developmental, Ethnographic, and Demographic Perspectives on Fatherhood Conference on Father Involvement and Methodological Workshop

Conference on Father Involvement and Methological Workshop

Conference on Fathering and Male Fertility: Improving Data and Research

The Town Meeting on Fathering and Male Fertility

The series began on March 27, 1996, with a Town Meeting on Fathering and Male Fertility in Washington, D.C. Invited speakers presented to the Forum short testimonies on methodological, theoretical, and political problems concerning collection of data on men. Presentations and discussions fell within five broad categories:

- the relevance of data on fathering and male fertility to the development of public policies that have significant effects on the well-being of children and the strength of families;
- the conceptual framework that should guide the collection of data on men;
- the limitations of existing data on men and ways to improve those data;
- issues to be addressed in future surveys of men; and
- the fiscal and political challenges to improving data on fathers.

The Conference on the Developmental, Ethnographic and Demographic Perspectives on Fatherhood

On June 11-12, 1996, the Forum cosponsored, with NICHD's Demographic and Behavioral Sciences Branch, Mental Retardation and Development Disabilities Branch, and Family and Child Well-Being Research Network, a conference focusing on the substantive and methodological contributions that developmental, ethnographic, and anthropological research might make in improving federal data collection efforts and research on fathering. Leading researchers presented information from their studies and explored ways to integrate approaches and findings from small scale qualitative studies with data from large scale surveys.

The Conference on Father Involvement and Methodological Workshop

The Conference on Father Involvement was held on October 10-11, 1996 and was sponsored by the NICHD Family and Child Well-Being Research Network. Noted researchers were invited to present multi-disciplinary perspectives on the study of fatherhood and empirical papers that examined factors predicting increased involvement of fathers and the impact of father involvement on child outcomes. All papers were requested to have the following features:

- father involvement be defined more broadly than just presence or absence;
- the focus be on biological or legal fathers;
- consideration be given to the kinds of roles fathers can play across family types; and
- presentations reflect common topics and definitions of terms.

Following the main conference, a Methodology Workshop was held to provide more in-depth discussion of methodological issues related to the study of father involvement.

The Conference on Fathering and Male Fertility: Improving Data and Research

On March 13-14 1997, the Forum, together with NICHD and the DHHS Fathers' Work Group, sponsored a conference on measurement and data collection issues. This conference produced specific recommendations for changes in how information on fathers and male fertility should be gathered by federal agencies and by other public and private data collection efforts. The conference was based on papers written by working groups organized in advance of the conference. These working groups and their activities are described below:

- *The Work Group on Male Fertility and Family Formation* examined the determinants and consequences of male fertility and union formation. It explored what is known and what needs to be learned about the male role in fertility and men's formation of sexual, cohabitational, and marital unions. Recommendations for improving data collection on these topics were developed.
- *The Work Group on Conceptualizing Male Parenting* considered new ways of conceptualizing fatherhood. The group considered how fatherhood was operationalized in surveys and found that some important constructs were missing. It suggested that efforts should be made to modify constructs used in

smaller scale research for use in larger surveys. This group also concluded that more basic research will greatly benefit data collection efforts. It identified both the short term and long term opportunities for improving data on male parenting.

- *The Work Group on Methodology* examined the various approaches available to ensure better enrollment and retention of men in studies and how to best obtain information from them once they are in a study. This group considered how administrative data can be used, and how the study universe can be expanded into institutionalized settings such as prisons and clinical institutions.
- *The Work Group on Targets of Opportunity and Tradeoffs* was responsible for identifying opportunities and tradeoffs within the existing data collection frameworks that would allow for the time-phased implementations of the recommended improvements. The major tasks of this group included identifying areas of consensus among the other working groups, looking for opportunities to make changes in the statistical system at reasonable cost, prioritizing issues, compiling preliminary suggestions, and keeping the issue visible and the agencies involved.

The Town Meeting and Conference Agendas can be found in Appendix A. Appendix A also has a list of the four working groups convened to develop materials for the March conference and to write the follow-up report to the Forum.

Summary of What We Learned

Most of the discussion of the importance of fathers in the United States today focuses on fatherhood in terms of men who are fathers. The questions posed in the press, in social commentary and in research are those of fathers fulfilling or not fulfilling their obligation--"Are fathers absent from their children's lives?" "Are divorced and never-married fathers meeting their financial responsibilities?" and "Are fathers in families with two working adults picking up their share of the parenting load?" Ignored are the vital demographic and social processes that bring men into fathering roles and influence the circumstances under which they act out those roles. But a proper and complete understanding of fatherhood is impossible without recognizing and accounting for these larger processes. Male fertility and union formation and dissolution are essential to understanding fatherhood. The case for this broad understanding rests on three points. First, *historically*, fatherhood has changed largely because of changes in the social and demographic processes of marriage, divorce, and child bearing. Second, *theoretically*, it is difficult to separate these processes from the nature of fathering itself. Third, in terms of *policy*, opportunities for improving the lives of children and parents will be missed if these processes are ignored. So the review and this volume concerns itself with understanding both how men become fathers, and what they do as fathers.

Relationship of Fertility and Fathering to Child Well-being, Healthy Families, Adult Productivity and Poverty

Policy interest in the role of fathers in families has been exploding as new research findings have been made available on fertility and on the role of father involvement in child growth and development. Until recently, fatherhood research was primarily clinical in orientation and concentrated in the fields of psychology, family studies and child development. But growing interest in nonmarital childbearing, child support, and their relationship to welfare has pushed the fatherhood issue into more large scale quantitative analysis, initially investigating the relationship of nonmarital childbearing and child support payments on child poverty and child well-being. More recently, research efforts have expanded to include additional measures of qualitative and quantitative father involvement and family relationships. This growing body of research, much of it funded by federal agencies and based on federal data collections efforts, has called into question the popular assumption that the primary, if not only, contribution fathers make to their children's lives is financial support.

- Today nearly one-third of children are born out of wedlock, and many of those children born to married couples experience the divorce of their parents. Increases in nonmarital childbearing and divorce over recent decades reflect complex economic, social and cultural changes that are still incompletely understood.

- Research shows that marriage confers important health and economic benefits to individuals as well as to the children that married couples raise. However, marriage is increasingly delayed or foregone. This is particularly true in disadvantaged populations, where not only economic constraints but changing values and norms have increasingly distanced marriage as a viable option.

- After decades of increasing sexual activity among adolescent boys, a leveling off or decline was seen in the early 1990s. Adolescent males hold positive attitudes toward responsible sex and parenting, but few pregnancy prevention programs have sought to involve them, and contraceptive options and reproductive health services for boys are extremely limited. Much more needs to be known about the motivational and social factors that influence male sexual and reproductive behavior.

- The chances that a man will become a father are strongly influenced by the nature of his relationships with women, and being a father affects the course of his intimate relationships. Available data show these interconnections clearly with respect to marriage, but we know very little about how being a father affects and is affected by the relationships of unmarried couples. Additionally, the circumstances of conception and birth affect fathers' support of and relationship with their children.

- Involved fathers are spending more time with their children, but fewer men are involved fathers. Fathers who live with their children are spending more time taking care of them, but divorce and nonmarital childbearing have reduced the average amount of time fathers spend with their children over the life course. Almost half of the fathers who do not live with their children have no contact with their children at all.

- The absence of a father in the home has adverse consequences for children's school achievement, labor force attachment, early childbearing, and risky behavior taking. Family structure makes a difference, even when income is taken into account. Two parents are better than one, but the data also show that many children, raised by dad alone or mom alone make a successful transition from childhood into adulthood.

- Research that separates father involvement from mother involvement indicates fathers have an independent effect on child well-being. For example, the father's parenting style, level of closeness, flexibility, and other family processes affect the child's well-being.

- Positive effects of father involvement have been a fairly consistent finding in studies of two-parent families, however, there is a growing body of research that indicates financial support plus the positive involvement of a father, including cooperation between parents, increases positive outcomes for children who do not live with both of their parents.

- Fathers affect children's behavior, but children also affect fathers' behavior as well. Married men with children work more hours and have higher earnings than other men. Parental competence and satisfaction are also associated with positive effects on fathers' own development and participation in the larger community.

Problems Encountered in Data Collection and Research

The problems identified below emerged from the review process, and especially from the March 1997 conference and its related activities, as the most serious data collection issues that affect our ability to understand how fathering affects men, women, families and child well-being. These problems are directly addressed in the targets of opportunity that have been identified in this report.

- Household surveys and the decennial census are affected by coverage problems, especially under coverage of men and children. For example, the Census undercount disproportionately affects information collection about young, unmarried minority fathers.

- Male fertility and fatherhood information is not consistently collected in national surveys, routine data collection effects, or clinical studies of children and families. For example, questions about women's fertility and child-rearing responsibilities are almost always asked, but often such basic information as the number of own biological children ever born is not asked of male respondents. Additional developmental work is needed to find methodologically sound ways of collecting this information.

- There is concern that existing surveys and studies may not be correctly measuring all the things that fathers do and how they affect their children. Relatively little work has been done that systematically compares the meaning and behaviors associated with fathering across ethnic, cultural and socioeconomic groups. Questions about what fathers do are often the same questions asked about mothers and there is little systematic data collected on family processes or dynamics. It may be that we are not asking the right questions about fathering, or are not asking the questions in the right way.

- Reliance on marital status and household composition often misrepresents the identification of single parent households and the degree to which fathers are involved with their children.

- Comparable information is needed on mothers and fathers, and, where possible, directly from mothers and fathers. Reports from mothers and fathers about facts often agree, but differ in their explanation of why things happened. However, even this agreement on concrete events is greatly affected by the state of the parents' relationship.

Structure of This Volume

The subsequent chapters of this volume focus on the Conference on Fathering and Male Fertility: Improving Data and Research and the papers and reports developed prior and subsequent to the conference. But it also builds on all the activities included as a part of the Forum review--the March Town Meeting and the June and October Conferences; the work of the National Center on Fathers and Families at the University of Pennsylvania; and the expertise of scores of research and policy experts on fertility behavior and family and child well-being. Many research needs and data collection improvements have been identified as a part of this multi-year review. It is hoped that this volume will encourage a broad response from the research community beyond the unique role of the federal agencies in collecting information and conducting research for the development of government policies and programs.

Chapter Two of this report summarizes the presentations, discussions and recommendations from the March Conference on Fathering and Male Fertility: Improving Data and Research. The next three chapters contain the papers written by the various working groups in preparation for the March conference. Chapter Three is the paper written by members of the *Work Group on Male Fertility and Family Formation* on determinants and consequences of male fertility and family formation. Chapter Four, written by members of the *Work Group on Conceptualizing Male Parenting*, identifies the conceptual, data, and policy issues that must be addressed to understand social fatherhood and paternal involvement. Chapter Five presents a review of the methodological issues and changes that must be addressed if data and research are to be improved; this chapter was written by members of the *Work Group on Methodology*. The final chapter summarizes the opportunities to improve federal data collection and research that have been identified for the Federal Interagency Forum on Child and Family Statistics to consider and provides information on the steps that are being taken by the Forum member agencies to turn opportunities into realities. The volume ends with a series of supporting appendices related to the review process and work group papers.

Chapter 2:

Summary of the Findings and Recommendations of the Conference on Fathering and Male Fertility: Improving Data and Research

BEST COPY AVAILABLE

Chapter 2: Conference Summary prepared by

Carol Emig and Angela D. Greene
Child Trends, Inc.

Introduction

On March 13-14, 1997, the final conference in a year-long series of conferences and meetings took place to summarize the findings of the work groups and develop an action agenda for improving the quality and quantity of federal data and research. The goal of this conference was to develop a specific action agenda for improving federal data and research on fathering and male fertility. Much of that agenda is directed specifically to the federal statistical agencies that gather data, fund data collection efforts, and conduct or sponsor research on families and children. However, the agenda inevitably goes beyond the federal government to the members of the private research community as well.

The conference format consisted of presentations and discussions of the findings and recommendations of three working groups -- on conceptualizing fatherhood, on issues related to male fertility and family formation, and on methodological challenges -- followed by intensive work by conference participants in small "breakout groups" to develop further recommendations for future data collection and research. The efforts of the working groups and the conference participants were informed by findings and discussions from three prior conferences that examined, among other questions, what is currently known and potentially available from the federal statistical system, and ways to inform large-scale surveys with findings from small-scale qualitative studies.

The findings and recommendations of the working groups are summarized here, as are the recommendations of the conference as a whole.

Working Group on Conceptualizing Male Parenting

Social Fatherhood and Paternal Involvement: Conceptual, Data, and Policymaking Issues

The Working Group on Conceptualizing Male Parenting, co-chaired by Randal Day, V. Jeffery Evans, and Michael Lamb, explored conceptual, data, and policy issues related to fatherhood.

Definitional Issues and A Thematic Framework

"Social fatherhood" is the term this working group used to describe its approach to conceptualizing fatherhood issues. The term encompasses biological fathers -- "the most important group of men we consider" -- but also extends to men who are not biological fathers but nevertheless assume some or all of the roles of a father in a child's life.

Working group members identified four themes they consider central to understanding the variety of issues related to fatherhood in contemporary society:

- the importance of family structure issues in light of recent sociodemographic changes in family composition;
- the role of cultural diversity, specifically the divergent ethnic and cultural patterns that shape fathers' parenting experiences;
- the role of gender in shaping the social context of parenting as well as how males and females view and experience their parenting roles; and
- the salience of a developmental trajectories perspective that recognizes that fathers, mothers, and children have different needs, goals, and interests which they express at various points throughout their overlapping life courses.

Assessing and Measuring Father Involvement

Several issues need to be considered when attempting to assess and measure father involvement. They include:

Domains of fathering. Drawing on the thematic framework presented above, the working group conceptualizes father involvement as much more than "hands-on parenting experience," to include the following ways that fathers can be involved with their children:

- cognitive involvement, such as making plans for activities together or for the child's future;
- affective involvement, such as being affectionate with a child or giving praise; and
- behavioral involvement, such as playing sports or games with a child.

Resources. Research needs first to identify the types of resources fathers provide, the amount of resources they share with their children and their children's mother, and the mechanisms for transferring resources. It then needs to distinguish these resources from resources provided by the mother and by others who may be contributing to children's support. Coleman (1992) identifies the following categories of resources that fathers provide to their children:

- human capital (e.g., skills, knowledge, and traits that foster achievement in U.S. society;

- financial capital, including money, goods, and experiences purchased with income; and

- social capital, including family and community relations that benefit children's cognitive and social development.

The working group emphasized the need for more research on how all three types of capital influence children's well-being.

Generativity. Social fatherhood can best be conceptualized using a generative fathering perspective -- one that views fathering as an emergent process that accentuates men's personal growth in relation to their children's well-being.

Responsible fathering. The working group endorsed Levine and Pitt's (1995) proposal that the "responsible man" does not participate in conceiving a child until he is emotionally and financially prepared to support a child, establishes legal paternity, shares in the continued emotional and physical care of his child, and shares in the continuing financial support of his child.

Paternal involvement. Fathers' involvement with their children include a diverse array of potentially overlapping dimensions and is further distinguished by individual and subcultural differences. Recognizing that individuals' implicit definitions of a "good father" may differ widely, the working group nevertheless sought to develop further an understanding of the factors that lead to positive forms of fathers' involvement. Among the elements the working group considered essential to paternal involvement are:

- nurturing and caregiving;
- moral and ethical guidance;
- emotional, practical, and psychosocial support of female partners; and
- economic provisioning or breadwinning.

Time Use. While there are a number of problems with father/child time use data, the research nevertheless points to a number of critical issues for data collection and analysis:

- Maternal employment does not appear to increase the time fathers spend interacting with their children; rather, the proportion of time fathers spend with children increases because mothers do less interacting as a result of working outside the home.

- Maternal employment probably has led to changes in the types of activities in which fathers engage.

- The amount of time fathers spend with their children is associated with socioeconomic class, children's age, and gender.

- Quantifying the time involved in fathering is difficult. In particular, "the anxiety, worry, and contingency planning that comprise parental responsibility often occur when the parent is ostensibly doing something else."

- There are a host of measurement inconsistency problems across studies.

Economic provider. The working group paid particular attention to the role of fathers as economic providers since this role is central to most people's definition of fatherhood, is a critical form of paternal involvement, and is related to several important public policy issues. Accordingly, the working group offered the following points with respect to fathers' role as provider:

- Economic resources matter because economic instability can lead to marital conflict, which in turn has negative consequences for children.

- Fathers who provide more money to their families often do so at the cost of spending less time with them.

- Mothers spend money in more child-friendly ways than do fathers.

- Many nonresident fathers do not pay formal child support. However, they may provide heretofore unreported support in the form of informal monetary or nonmonetary contributions to the mother.

- Child support has positive effects on children's cognitive achievement and educational attainment that cannot be accounted for solely by the financial contributions.

- Very little is known about the economic contributions to the household and to children of stepfathers or male cohabiting partners.

Motivations for Fathering

The working group also examined issues related to the factors that motivate men to become fathers and to perform responsibly in that role. In general, men's motivation to procreate and to act as responsible fathers are shaped by cultural images of fatherhood as well as men's sociocultural background, their current social circumstances, and their earlier experiences, particularly with their own parents. The primary motivations identified were:

- the experience of caring for and raising children;
- an opportunity to strengthen their bond with their romantic partners;
- to ensure that they are not lonely or financially vulnerable in their later years;
- to feel more connected to their extended family and/or friends.

Other motivations noted by the working group include:

- some fathers are motivated to be involved with their children because such involvement is related to healthy adult development;
- some men are motivated by recollections of the fathering they experienced as children as well as their interpretations of other men's fathering behaviors in specific social situations;
- some are motivated by a desire to seek or enhance a level of maturity and receive confirmation of social status;
- some are motivated by their commitment to being a certain kind of man, partner, or father, which affects their desire to be involved with their children in particular ways.

Finally, the group noted a growing thread of research in which sociobiologists suggest that both men and women strive to maximize the representation of their genes in future generations.

The role of motivation in conceptualizing men's parenting role is fertile ground for researchers. Very little is known about why men choose to parent and how those choices vary by age, ethnicity, culture, or social class. Nor is much known about why some men are more motivated than others to be involved in particular ways in their children's lives.

Family Processes and Fathering

Family process research explores how family members think, feel, and act toward each other and is measured by assessing the relationships among multiple family members. There is little research exploring how a parent's gender may affect family processes. Yet there is evidence suggesting that when a father's and mother's contributions are examined separately, the differences predict in discrete ways and reveal more about family outcomes than does research that examines family process only from one parent's point of view or from a combined perspective. The working group therefore emphasized the need for specific studies of fathers' roles in family processes.

Policy Issues

The working group noted that, in the past, public policies related to fathers have been largely punitive or coercive, for example, enforcing child support obligations. Until recently, there has been little discussion of policy initiatives that encourage responsible fathering.

Two recent trends are particularly significant for public policy. First, while it appears that the proportion of fathers who are interested in playing a more active role in their children's lives has been increasing, the proportion of fathers who are either disengaging or are pushed away from their paternal responsibilities has also been rising (Furstenberg, 1988). Second, the increasing frequency of diverse family types requires men (and others) to visualize and negotiate new roles. If social policy is based on the traditional nuclear family model, new forms of responsible fathering by biological fathers or stepfathers are likely to be constrained.

The working group highlighted several areas in which public policies could be developed or refined to promote father involvement. The working group also identified several paradigmatic issues that should be revisited in light of changing roles within families and the influence of various social institutions on the family. These include:

The Divorce Process. Some research suggests that continued positive father interaction after divorce promotes more favorable child outcomes. Among the suggestions offered by the working group are policies that provide couples with easy access to mediation during and immediately after the divorce proceedings and exploring ways to encourage post-divorce relationships that promote children's best interests.

Procreative Responsibility. Researchers and policymakers need to adopt an expanded conceptualization of fatherhood and men's responsibilities as fathers by acknowledging men's prenatal experiences and orientation toward procreative responsibility.

Mother/Father Differences. Do fathers differ from mothers in their family behavior, and do fathers' contributions to and involvement in their children's lives change as children grow up? If so, fathers' disengagement early in a child's life must be evaluated in terms of possible future effects, as well as short-term effects.

Incomplete Institutions. Our culture has changed so rapidly that nontraditional family forms have not had time to become "institutionalized." There are no well-defined "standards" to apply to these new situations. Public policies should acknowledge that in many cases nontraditional families are facing uncharted territory and may need assistance during critical transitions.

Duality. Fathers are traditionally seen as their children's protectors, providers, and guides in the transition to adulthood. But some fathers are negative role models or present a danger to their children through violent or self-destructive behavior. Policymakers need greater insights from research on how to address these competing realities.

Public Policies. The working group report highlighted several proactive roles that public policy, law, and the private sector can develop to assist fathers to engage in responsible fathering. These include greater sensitivity to structural changes in the economy that have marginalized the material contribution that economically disadvantaged fathers can make to their children; reexamination of "man in the house" rules; reevaluation of the latent consequences of administrative rules that require fathers' child support to be used to reimburse the government for welfare support provided to the mother and her children; allowing nonresident fathers of children on welfare to enter job training and other welfare-to-work programs; and inclusion of specific fatherhood programs in either child support and/or maternal health programs.

Divorce and Custody Issues. The working group also noted several areas where divorce and custody policies and practices might be reexamined to promote father involvement. These include improving policymakers understanding of the complexities that characterize divorced families; application of informed research to the child custody decision-making process; additional research on the consequences of family relocation following a divorce; further exploration of the relationship between fathers' visitation patterns and child support payment, and whether greater father contact is related to better child outcomes.

Existing Policies and Programs. The working group pointed out that health insurance determinations and policies around programs like Head Start are places where strong father/family friendly components could be added.

Workplace Policies. Growing social expectations that fathers will increase their caretaking roles suggest that men may have to change their expectations for themselves at work, and that employers may have to change their expectations to adapt to male employees who are more involved fathers.

Recommendations

The working group concluded with several specific recommendations, summarized here:

1. *To enhance their understanding of fatherhood in contemporary society, researchers and policymakers should attend systematically to four themes: changes in family structure, the role of social class and race, gender as a major organizing principle of social life, and the salience of developmental trajectories.*

2. *Researchers should continue to show how conceptual and theoretical concerns, measurement and data questions, and policymaking issues overlap and mutually inform each other.*

3. *Concepts should be developed that capture the meaning and definition of who fathers are, and should address conceptions of fatherhood throughout the life course.*

4. *Researchers and policymakers should attempt to understand individuals' perceptions of the varied meanings associated with biological and social fatherhood and the consequences of these perceptions.*

5. *Research should explore how individuals distinguish between fathers' investments or perceptions of their status as fathers versus their views and involvement in the process of fathering.*

6. *Research and social policy need to focus on fathering as a process, in addition to focusing on it as a social or legal issue.*

7. *More attention should be given to family processes and to specific contexts that either help or hinder specific expressions of fathering and shape children's well-being.*

8. *Researchers should seek to develop a more systematic and richer portrait of how men, women, and children from different backgrounds view aspects of fatherhood.*

Finally, the working group offered four recommendations related specifically to data collection issues of concern to policymakers:

1. *Ensure that future data collection efforts in the area of fatherhood are done in an interdisciplinary context.*

2. *Increase efforts by the research and funding communities to improve large-scale data collection efforts.*

3. *At the same time, promote smaller-scale studies that focus in-depth on particular fatherhood topics.*

4. *Focus resources on studying the processes associated with key transitions that affect fathering. In particular, research should examine paternal involvement during crises or transitional periods, e.g., issues associated with nonmarital births, divorce or custody issues, entry or release from prison, and work and family transitions.*

Working Group on Male Fertility and Family Formation

Research and Data Needs on the Pathways to Fatherhood

The Male Fertility and Family Formation Working Group, co-chaired by Christine Bachrach and Freya Sonenstein, reviewed the state of knowledge about fertility and union formation and dissolution among men, and suggested data and research necessary to advance understanding of these issues and inform policy.

The Case for a More Complete Understanding of Fatherhood

This working group proposed that a more complete understanding of fatherhood would go beyond simply studying men who are fathers to a consideration of the demographic and social processes that bring men into fathering roles and influence the circumstances under which they act out those roles. Three factors led the group to this conclusion:

- First, historical changes in marriage, fertility, and normative attitudes toward family behaviors have played a central role in reshaping fatherhood.

- Second, the process of union formation and dissolution and the processes of male fertility themselves have important theoretical implications for fathering. Specifically, the nature of fathering roles, expectations, and behaviors are linked to the circumstances in which biological fatherhood occurs, and to the nature of men's relationships with the biological mother of their children.

- Third, the processes of male fertility and family formation are critical to policies and programs aimed at strengthening fathers. Because fertility and family formation processes provide the context for how fathers function in their families, understanding them can help to improve and target interventions for strengthening father involvement. These processes also provide additional points of intervention for programs that seek to promote responsible fathering.

A Model of Biological and Social Fatherhood

The distinction between biological and social fatherhood is critical for understanding how fertility and unions affect fatherhood. Fertility creates biological fatherhood, a status that is fixed regardless of how paternal responsibilities are defined or carried out, and revocable only through the death of the child. Social fatherhood, by contrast, is not a fixed status. It includes all the childrearing roles, activities, duties, and responsibilities that fathers are expected to perform and fulfill. Biological fatherhood is one of several paths to social fathering. Unions formed and maintained with women who are mothers -- whether of the man's child or someone else's child -- are another critical path to social fatherhood.

Male Fertility

To discern how men become fathers, it is critical to go beyond the simple biological facts and understand better the complexities underlying sexual and contraceptive behavior of males, the motivation underlying these behaviors, and the factors influencing them.

Whether or not contraception is used in intercourse is determined by a complicated set of conditions involving two people. The first condition involves choosing or negotiating which partner uses contraception. The second condition involves whether or not the partners desire pregnancy. (In this case, the conscious decision not to use contraception because pregnancy is desired should be differentiated from the non-use of contraception for other reasons.) Very little is known about the "proceptive" behavior of either men or women in the U.S. who are seeking parenthood.

Decisions about sterilization are also important to understand -- particularly why men are less likely than women to undergo sterilization. Another decision in which some men participate involves carrying a pregnancy to term or terminating it. How a man's relationship to his child is colored by the nature of his participation in decisions leading to unintended pregnancy and birth is an open empirical question.

Noting that information about male fertility behavior is scant, the working group made several recommendations about what we need to know about male reproductive behaviors and the factors influencing those behaviors:

Trends in Nonmarital Sex, Unprotected Sex, and Unintended Pregnancies and Births. The National Center for Health Statistics in cooperation with other agencies should develop an approach to institutionalizing the collection of data about male fertility, either by adding to existing surveys or by launching independent efforts.

Motivations and Attitudes. To develop a more complete understanding of male motivation and its links to behavior, the working group recommends:

- Research on the motivation of males to engage in sexual activity, to contracept, to impregnate partners, to father children, to obtain vasectomies, and to terminate unintended pregnancies.

- Methodological studies to develop better measures of motivation in these areas.

- In-depth studies of special populations which focus on theory building and a more comprehensive understanding of the motivational underpinnings of reproductive behavior.

- Inclusion of measures of motivation with known levels of reliability and validity in representative sample surveys of males.

Factors That Influence Male Reproductive Behaviors. A wide-range of theoretical frameworks have been advanced to explain reproductive behavior, each emphasizing various influences on behavior. The working group identified several of these influences and offered recommendations for research to explore their applicability:

- ***Biological factors.*** Basic research is needed on the links between physiological traits and reproductive behaviors for men, and also for women.

- ***Family influences.*** Longitudinal studies of both boys and girls are needed to gain a better understanding of the factors in childhood and adolescence that lead to the development of adult expectations and behaviors regarding sex, pregnancy, childbearing, and childrearing.

- ***Gender role ideology.*** In sample surveys containing measures of reproductive behavior, more information should be collected about gender role attitudes. In particular, greater information about men and women's attitudes towards male gender roles need to be added to the conventional measures used to gauge attitudes towards women's gender roles.

- ***Peer and community influences.*** Efforts to create multilevel data sets should be supported. The feasibility of adding contextual measures to sample surveys that are currently freestanding should be explored.

The working group also offered several research strategies for exploring the factors that influence male reproductive behavior. These include:

- Mining existing data sets thoroughly for insights into male reproductive behavior.

- Expanding data collection strategies beyond sample surveys to include studies using a variety of methods.

- Initiating a longitudinal study of children that traces their development over the course of their childhood and their transition into adult roles.

Union Formation and Dissolution

The formation and dissolution of relationships with women often have profound effects on men's roles as social fathers. The working group therefore reviewed what is known about the meaning of different types of unions and the determinants of union formation and dissolution, and suggested data and research directions.

The Meaning of Marriage and Cohabitation. Because of the shifts in the types of unions men and women form, the working group noted the need for better information about marriage, cohabitation, and other types of relationships. Specifically, the recommended:

- substantive and methodological research concerning the meanings of different kinds of unions today, including marriage, cohabitation, and non-coresidential unions;

- research on the historical trends in union formation and dissolution, with particular emphasis on explicating the explanations and meanings of those choices.

What Influences the Formation and Dissolution of Different Types of Unions? Union formation and dissolution are intertwined with, influenced by, and consequential for many other dimensions of life. To identify and explore the factors that influence men and women to form and/or dissolve unions, the working group recommended:

- Research on the causes and consequences of union formation and dissolution, particularly the causal processes and mechanisms that lead people into unions, influence them to form different types of unions, and result in the dissolution of their unions.

- Exploration of the ways in which individuals and couples make decisions about the formation and dissolution of unions.

Research Agenda and Data Needs. The working group concluded its discussion of union formation and dissolution by noting that the data requirements for describing and explaining behavior and trends in this area have become more complex and rigorous. To address these needs, the group offered the following recommendations:

- Ensure that data collections focusing on union formation and dissolution be designed to include information about a wide range of union types.

- Wherever possible, basic studies of union formation and dissolution should ascertain complete marriage and cohabitation histories.

- Conduct additional data collection and analysis using qualitative approaches. Expand the utilization of multi-method approaches in studying union formation and dissolution.

- Expand and maintain data collection systems for monitoring future trends in union formation and dissolution. Current data collection efforts should be expanded and supplemented to include information that permits the monitoring of attitudes, values, and behavior, and other information that is useful for studying the causes and consequences of union formation and dissolution.

- Plan and field a new study that is designed explicitly to examine union formation and dissolution. Such a study should be designed explicitly to study causes and consequences, negotiation and decision making, and the processes leading up to the formation and dissolution of unions.

The Interrelationships of Male Fertility and Unions

Whether a man has sex, impregnates a woman, and becomes a biological father are all influenced by the nature and dynamics of his relationships with women. These factors also affect whether legal paternity will be established, whether a man is recognized informally as a child's father, and whether he has access to the child. Similarly, pregnancy and birth can have an important effect on the course of male-female relationships. The working group reviewed what is known about how personal characteristics, relationship dynamics, and fertility interact throughout the life course, noting that our understanding is very incomplete.

The Effects of Relationships on Fertility. Sexual relationships have both demographic and interactive dimensions, each of which can affect sexual behavior, contraception, abortion, pregnancy intentions, and birth. For example, relationship commitment seems to have a positive effect on attitudes towards having a birth with that partner.

The Effects of Fertility on Relationships. Research indicates that, just as relationships affect fertility, pregnancy and birth can prompt changes in relationships. For example, the probability of marriage increases sharply in the short run in response to pregnancy or birth. Pregnancy can also lead to conflicts and stress within relationships. Finally, research shows that the presence of children deters union dissolution among married couples.

The Effects of Prior Unions and Births on Later Family Formation. Evidence is beginning to accumulate that suggests that prior union and fertility experiences influence the formation and stability of later unions and fertility within them. One study, for example, demonstrates that nonmarital childbearing reduces a woman's likelihood of marrying during her childbearing years, while another demonstrates that children deter remarriage after divorce among white women.

In addition, there is evidence that unions formed by individuals who already have children appear to be less stable. There is also some evidence that appears to suggest that husbands with children from prior marriages have lower fertility in new unions.

Gaps in Research and Data. With respect to the interrelationships of male fertility and union formation/dissolution, the working group again noted serious gaps in our knowledge and offered recommendations:

- New data are needed to provide a more comprehensive view of the intersection of fertility with relationships of all types.

- Information about relationships is needed from both men and women in order to understand gendered views of relationships, sex and contraception, and childbearing, and in order to capture both parties' motivations and influence on decisions that affect the likelihood of pregnancy and birth.

- Relationship data should be longitudinal, so that researchers can disentangle self-selection into relationships from relationship effects on childbearing.

- Research and data are needed to understand better how and why patterns of fertility and family formation vary among groups that differ in socioeconomic status, nativity, race, and ethnicity.

- The potential of new and emerging studies for answering these research questions should be thoroughly exploited through analyses of existing data.

- Existing data should be reinforced through the expansion of ongoing data collection efforts.

- Efforts to strengthen quantitative data should be accompanied by further qualitative studies in a broad range of communities and populations.

Health Education/Reproductive Health

The working group reviewed what is known about males' receipt of reproductive information from schools and other sources, as well as their utilization of reproductive health services.

Sex Education/Information. While survey data exist that measure school age males' knowledge of reproduction and whether they receive sex education, there is little detailed information about the kinds of instruction that occur. Nor is much known about other sources of information related to reproductive health, such as peers, parents, and the media. There is also an abiding need to identify promising program approaches to reducing the risk of early sexual involvement, unintended pregnancy, and STD transmission, and to evaluate these interventions rigorously.

The working group therefore recommended that:

- Surveys of teenagers and adults should collect data about the sources of information that are used to gain knowledge of reproductive health issues and to support the examination of the relative effectiveness of different information sources in increasing knowledge and influencing behavior.

- Trend information is needed about the types of instruction about reproductive issues that schools are providing.

- Promising prevention programs need to be identified and to undergo rigorous evaluations.

Reproductive Health Services. No comprehensive source of information about the use of reproductive health services by men is currently available, although administrative records and a few national surveys provide some limited information. The working group therefore recommended:

- Surveys of men that collect information about their receipt of a broad array of medical and health services and assess their awareness of attitudes toward, use of, and experiences with male reproductive health services, alone or in the company of partners.

- Studies of the determinants of males' use of reproductive health services, including provider characteristics and social or structural barriers that may deter use.

Indicators of Male Fertility and Family Formation

Because there are no institutionalized mechanisms in the U.S. for collecting data on male fertility or union formation, the working group recommended establishing a set of indicators to monitor key aspects of the fertility and union processes that influence fatherhood. These indicators should include both attitudes and behaviors and be drawn from a variety of relevant domains. The group further recommended that existing data collection efforts be strengthened to provide valid and timely monitoring of key indicators of male fertility and family formation.

Theory and Methodology

There is no unified and accepted theory that explains union and fertility behavior among men and women; rather there are many useful perspectives drawn from a variety of disciplines and research traditions. The working group therefore recommended that:

- Any data collected should permit the testing of a broad range of hypotheses drawn from relevant theoretical perspectives.

- Theoretical frameworks should incorporate the perspectives of both men and women, and take account of the dyadic nature of fertility and family formation.

- Theoretical advances need to address issues of gender explicitly.

Methodological Issues. Theory development must be accompanied by methodological research to facilitate valid tests of hypotheses. While identifying a range of methodological challenges, the working group nevertheless stressed that adequate methodologies are already within reach to pursue much of the research agenda outlined in its report, and that research and data collection should therefore occur simultaneously with methodological work.

To meet the methodological challenges it identified, the working group recommended:

- Development of survey methods that facilitate the inclusion of "missing populations" in studies, such as incarcerated and homeless men, men loosely attached to households, men in the military, and male partners who are loosely attached to relationships.
- Research to identify and correct sources of bias in men's reports about their fertility and family formation experience.
- Development of new measures in several domains, including the study of nonmarital relationships; motivations for sexual, contraceptive, fertility, and union-related behaviors; and the meanings of and attitudes toward gender, unions, and parenthood across different population groups.
- Further development of statistical methods that permit analyses of dyadic decision-making and behavior while accounting for selection effects.

Steps for the Future: Indicators, Data Collection and Research on Male Fertility and Family Formation

The working group concluded by summarizing its key recommendations for federal agencies concerned with research and data collection related to fatherhood. These include three areas of effort: developing indicators, collecting data, and mobilizing research.

Indicators. A core set of indicators should be developed to monitor key aspects of the fertility and union processes that influence fatherhood. Consideration should be given to including this set of indicators in *Trends in the Well-Being of America's Children and Youth*, an annual report by the Assistant Secretary for Planning and Evaluation in the Department of Health and Human Services. One or more key items might also be included in *America's Children: Key National Indicators of Well-Being*, a shorter volume produced by the Interagency Forum on Child and Family Statistics.

Data Collection. Data collection efforts should be strengthened and, in some cases, institutionalized to provide a reliable basis for producing indicators and provide data for analytic studies. NCHS, in collaboration with the Census Bureau and other agencies, should take the lead in expanding or modifying current data collection systems to provide indicator data on a timely (approximately every three years) and reliable basis.

There is also a need for new longitudinal data to provide the basis for analytic studies of the processes involved in male fertility, union formation and dissolution, and the interrelationships among fertility, unions, and parenting.

Research. Various agencies, including ASPE, OPA, NICHD, and ACF, should promote and stimulate research on male fertility and union formation and dissolution. The working group recommended that this research focus on the following major substantive areas:

- Research on gender roles and attitudes, and the influence of gender on the processes of family formation and fertility.
- Research on union formation and dissolution, including studies of the causal processes associated with the formation, maintenance, and dissolution of unions, and the meaning of different union types, and studies that explain and interpret historical changes in union formation and dissolution.
- Research on the factors influencing male fertility and fertility-related behaviors, motivations, and attitudes, including those relating to sexual behavior, contraceptive use, pregnancy and pregnancy outcomes, paternity establishment, and fathering; and including influences at the individual, family, peer, institutional, and community levels.
- Research on the intersections among fertility, union formation and fathering, including the effect of planned or unplanned fatherhood, paternity establishment, and transitions in union status on fathering, and the influence of changing meanings of fatherhood on fertility and family formation behaviors.
- Research on the nature, availability, use and effectiveness of reproductive health education and services that help to prevent unintended pregnancy and contribute to the health and well-being of men.

Working Group on the Methodology of Research on Fathers

Methodological Issues in Improving Data on Fathers

The Working Group on the Methodology of Research on Fathers, co-chaired by Andrew Cherlin and Jeanne Griffith, examined important methodological issues that need to be addressed to increase confidence in data to be collected on fathering and fatherhood.

Studies of Methodological Interest

The working group's report began with brief summaries of some of the major national surveys with protocols of methodological interest, including Add Health, Early Childhood Longitudinal Study (ECLS), National Adult Literacy Study (NALS), National Longitudinal Survey of Youth (NLSY-97), National Survey of Adolescent Males, National Survey of Families and Households (NSFH), National Survey of Family Growth (NSFG), National Survey of Men, Panel Study of Income Dynamics (PSID), Survey of Income and Program Participation (SIPP), and various surveys conducted by the Bureau of Justice Statistics. These surveys are currently the primary sources of information on fathers and thus serve to inform the discussion of further methodological advances that may be required.

Methodological Issues

The working group addressed methodological issues in three major areas: population identification, data collection procedures, and study design.

Population Identification: Undercounting. Fathers who are not located or are not included in the survey process at all are undercounted in large scale sample surveys. Undercount rates are higher for men than for women, and for minorities relative to whites and Asians. They are also higher for unrelated persons, such as men who are not married to the household respondent. Undercounting also appears to be greater for never-married fathers than for previously-married fathers. In addition, men in the military, prisons, jails, or other institutions are typically excluded by design from household-based surveys.

One promising technique for reducing the undercount within household surveys is to use expanded rosters with multiple probes, as the Census Bureau did in an experimental "Living Situation Survey" in 1993. Other surveys are planning dual rosters. The NLSY97, for example, will include a household roster and a second roster of relevant individuals who live elsewhere, such as noncustodial parents, nonresident children, etc. Future studies might benefit from a typology of living arrangements, which would help with the creation of a list of terms and probes, while also moving survey researchers beyond thinking in terms of traditional families.

The use of administrative records will help reduce both undercoverage and undercounting. Household members not identified by respondents can sometimes be found through these records. Absent family members, especially those institutionalized or homeless, also could be identified.

The working group urged that the interviewer's role in undercoverage and undercounting be addressed. For example, vacancy checks could be conducted both to find missing households and to evaluate interviewer reports. The eligibility rates obtained by individual interviewers could be compared to one another or to historical estimates. Interviewing techniques for persuading reluctant households to participate in a survey could be refined and improved.

Finally, weighting represents another way to reduce the effects of undercoverage and undercounting, and the working group noted that work to develop adjustment models is already underway.

Population Identification: Underreporting. Absent male parents tend to underreport their parental status to a large extent. Technological advances in survey research may reduce this underreporting. For example, ACASI technology, which involves giving respondents earphones and a laptop, has boosted reports of abortion in tests of women conducted by NCHS and may be a useful technology for increasing reports by males of children and of sensitive behavior.

Population Identification: Changing Family Structures. Most large scale sample surveys reflect more traditional two-parent family models or parents living singly. It has been less common for surveys to take into account multiple family forms such as cohabiting unmarried couples or families with other relatives who play important parenting roles. In multi-family households, CAPI methodology allows for creating spinoff cases with new family rosters. Spinoff cases could be created for parents or children not living in the household, who could be linked to the household by special relationship codes in the original roster.

Population Identification: Sampling Strategies. Much of the interest in fathers focuses on men who are relatively rare in the population, such as fathers in varied employment statuses. Problems of adequate sample size are exacerbated in analyses that need to cross-classify by race/ethnicity, socioeconomic status, age and gender of the child, or various family configurations.

One of the basic problems is the large sample size needed to arrive at an eligible sample which can provide sufficient statistical power. This requires either substantial funding or the ability to piggyback onto other research or find other cost-effective approaches. Research which investigates the cost and error implications of the choice of mode would be useful.

Another problem is following movers in longitudinal surveys, which is important for measuring long-term outcomes. The working group noted that much can be learned from the NLSY, SIPP, and other surveys which attempt to track respondents across significant periods of time. Administrative records might also be explored as a way of following families that separate.

Population Identification: Institutional Populations. Typically, large scale national surveys of the population represent the civilian, noninstitutionalized population only. A large share of men excluded by these approaches are fathers. It is therefore important to examine better ways to obtain information from men who are in various types of institutions or in the military.

Data Collection Procedures: Response Burden. Two types of response burden need to be addressed. The first involves the difficulty of the task and relates to length of questionnaire, how many respondents are interviewed, and the difficulty of the questions. Much more research is needed to develop less burdensome data collection instruments for fathers and children. Research is also needed on the problems associated with recall of family history and the usefulness of available records in the household. The optimal frequency of data collection for recurring surveys should also be determined.

The second type of response burden is related to sensitive items. Here, mode of administration is important, since distance from the interviewer can affect the respondent's feelings of privacy and confidentiality. Methods for reducing this burden include randomized response techniques, self-administered survey instruments, and question order.

Data Collection Procedures: Reporting. Further research is needed on subject areas for which previous partners or children are able to serve as proxy respondents and which ones require the additional expense of locating and interviewing the fathers to achieve needed accuracy and reliability. With respect to accuracy, it is not clear that self-response is always more accurate than proxy reports.

Data Collection Procedures: Administrative Records. The usefulness of administrative data depends on the topic being studied and the availability of information in different records systems. In any application, researchers must investigate whether access to records can be obtained, what information is available, the quality and completeness of the information, and how such information might be linked to other data being obtained in the study.

Data Collection Procedures: Mode of Data Collection. The consequences of gathering data using different modes (mail, telephone, or personal interviews; degree of computer-assistance; observational studies; diaries; or other modes) are closely related to the type of study being undertaken. Most studies of the effects of interviewing mode have examined the more typical respondent, in this case, the mother or the child. Further research is needed into how various modes may influence data quality and response rates.

Study Design: Questionnaire Design and Measurement Issues. Compared with mothers, fathers may have unique ways of interacting with their children, and such relationships cannot be discerned using traditional survey questions. Further research is needed on what aspects of fathering are important to men, what aspects are important to children, and ways to improve the quality of information through improving the questions asked. New questions will be needed to assess what fathers contribute to their children, and the ways fathers and children view their relationships with each other. All questions must be thoroughly tested to ensure data quality.

Among the working group's other recommendations are that research should also be undertaken to develop methods which overcome problems of memory and recall; questionnaires should be designed that work well with the mode of data collection; and multiple measures from multiple sources will be necessary to ensure the quality and/or accuracy of the data.

Study Design: Linking Quantitative and Qualitative Designs. Enhancing quantitative survey designs with qualitative research methods has the potential to enhance knowledge. The working group pointed to examples of the effective use of qualitative methods to inform and guide quantitative research and highlighted lessons from these experiences. One is that qualitative methods are useful for designing questionnaires which interviewers can administer more easily and that respondents can understand. They can also help explain seemingly conflicting or confusing findings from quantitative research.

Study Design: Longitudinal or Cross-sectional Designs. While longitudinal designs tend to be thought of as more expensive, they may be more cost-effective through providing richer information with a smaller sample than may be achieved with repeated cross-sectional studies.

Study Design: Population Diversity. In studies characterized by uniform administration (such as large-scale sample surveys), conscious compromises will need to be made to develop items that are understandable to a wide variety of respondents. In other types of research, special, more targeted approaches may be taken when dealing with different populations.

Study Design: Measuring Time Use. The most accurate ways to collect time-use data (observation, time sampling) are also the most expensive. Yet the most common method used in survey research -- asking parents directly -- is known to be biased. Fortunately, substantial methodological work has established the validity and reliability of data collected in time-diary form.

How Should New Data Collection Be Undertaken?

Two fundamental issues for the research community to consider in designing studies on fathers are whether to initiate a new study or add on to an existing survey, and whether the study should be conducted by federal statistical agencies or as a privately sponsored effort. The working group provided some guidance about factors to consider when addressing these questions.

New versus Supplemental Studies. New studies have a distinct advantage in that the designers and sponsors have greater latitude in defining the scope of the study. They have the disadvantage of higher costs and longer start-up times. Supplemental studies are typically lower in cost and have a faster start-up time, but the study directors generally have little control over the design of the survey and sample.

Federal versus Privately Sponsored Studies. While federal studies historically have had more secure funding sources, this may no longer be the case in the current budget climate. Federal surveys have a small advantage in easier access to national sampling frames. In addition, requirements making federal data publicly available enhance the value of the study for the broad research and policy community. And despite concerns about response burden, the federal government still tends to achieve substantially higher response rates than are achieved in private surveys.

Federal surveys also have disadvantages, many stemming from a generally long lead time from conceptualization to development to data production and analysis. Privately sponsored studies or studies conducted with federal grants avoid some of these disadvantages. On the other hand, private studies can be less likely to provide timely public use data files to allow the broader research community access for analysis.

Recommendations

The working group concluded with a summary of the implications of its report for future research on fathers. The group stated these implications as a series of recommendations.

1. ***Include men and fathers.*** Male fertility and fatherhood are complex aspects of social life that are inadequately understood. National surveys need to provide an accurate and in-depth profile of fathers that goes beyond concerns about absent fathers. In particular, the ECLS and the NSFG should consider including fathers as respondents. In addition, studies of what nonresident fathers do should include reports from nonresident fathers -- a substantial change in research design.

2. ***Improve household survey methodology.*** Underrepresentation of fathers in household surveys is due partly to an undercount of fathers who are tenuously attached to households, and partly to underreporting by men

who do not disclose that they have children living elsewhere. Both of these issues can and should be addressed through methodological improvements.

3. ***Add expanded household and extra-household rosters to existing surveys.*** Experimental surveys have increased their coverage of underrepresented groups of fathers by using an expanded set of questions and probes. Existing surveys should further test these questions and probes along with their standard restoring techniques. In-depth studies (particularly long-term longitudinal studies) should consider including fathers. The Early Childhood Longitudinal Study (both the kindergarten cohort and the planned birth cohort study), in particular, should make every effort to include a father supplement at some point in the study. In addition, some effort should be made to include men in correctional institutions in household surveys.

4. ***Develop questions that are relevant to fathers and result in accurate responses.*** New questions are needed to assess fathers' contributions to their children's development, as well as better methods for interviewing.

5. ***Improve procedures for asking sensitive questions.*** Some promising techniques for survey research have been developed, such as audio computer self-administered segments of interviews. Ethnographic studies may also provide useful guidance.

6. ***Reduce response burden.*** Studies are needed of ways to reduce the response burden imposed by extensive sexual histories and reproductive careers. The life-history calendar is one promising way to reduce response burden. But little methodological research has been conducted specifically on men.

7. ***Conduct intensive observational studies.*** The gaps in our knowledge of what fathers do suggest the importance of smaller, intensive observational studies for providing valuable insights about fathering and for generating hypotheses that can be tested in larger surveys.

8. ***Use supplementary and alternative sampling strategies.*** Because the standard household sample-survey appears not to find many unmarried fathers, other sampling strategies should be considered either as supplements to household surveys or as alternatives. The other strategies include use of administrative data to locate absent fathers, the addition of the incarcerated population and the military population whenever possible,

and the development of alternative designs, such as sampling of births at hospitals.

9. ***Recognize population diversity.*** The roles of fathers are embedded in larger family processes that can differ by class, race, and ethnic groups, and differ again within these groups. Studies need to take this diversity into account.

10. ***Be careful of unobserved sources of bias.*** Research designs that can reduce bias should be used where possible. These include so-called panel data, studies of families that are affected by external assignments of fathers' roles such as military transfers or court orders, and statistical models that attempt to correct for incomplete and self-selected samples.

11. ***Carefully consider additions to existing data programs.*** It is not clear that completely new, large-scale studies should be undertaken at this time. There is a great deal to be learned from working with existing survey mechanisms. Important contributions can also be made with small scale work and through expansions to existing studies of family conditions and processes.

12. ***Conduct more methodological research.*** Many important facets of research on fathers need to be improved before we can be satisfied with the quality of current and future studies. These include the basic problems of finding nonresident fathers, of underreporting of fatherhood by men, and of obtaining full and accurate answers. We need to know more about how to combine and analyze responses from mothers and fathers in data in which couples are the unit. We also need to know more about what aspects of fathering are important and valuable, probably through detailed observational studies.

Final Plenary Session: Conference Recommendations

Following presentations and discussion of the working groups' reports, conference participants worked in small groups to develop specific recommendations for research and data collection. Each small group's recommendations were presented and discussed in a final plenary session. Below is a summary of their recommendations.

- **Build on existing research.** The conference highlighted gaps and weaknesses in existing research. However, a great deal is known about fathers, and existing research provides a firm basis for future work.

- **Further analyze existing data.** Although there is a need for new data on fathering and male fertility, several existing data sets contain untapped information. It is important to maximize the use of existing data sets to determine specifically what is known and what is needed before embarking on the development of a new survey on fathers. One important way to encourage investigators to use existing data and research is to increase their awareness of the available resources through publicity.

- **Conduct basic methodological research.** The dual goal of methodological research is to improve existing surveys and to design a well conceived, focused study of the issues of fertility and parenting. There is a need for basic methodological research to help refine constructs and measures related to fatherhood, to look more closely at what it means to be a father, and to focus on attitudes and perceptions of fatherhood, in particular, how attitudes and perceptions may differ across race/ethnicity or family types.

- **Further examine specific topics related to fathering and male fertility.** The groups identified several topics that various participants felt warranted closer examination with both existing and new measures. These topics, which were not prioritized, included:

  - the role of moral development and character as they pertain to fertility, family formation, and fathering;

  - sexual behavior and fertility and their association with union formation and dissolution;

  - the definition of "intendedness" and whether a man's attachment to his partner affects intendedness;

  - how the relationship between a mother and father affects father-child attachment;

  - the expectations and responsibilities of fathers;

  - the role of fathers as primary caregivers;

  - the role of social versus biological fathers;

  - family processes in general, and how activities vary by gender;

- how fatherhood and union formation affect the wellbeing of both the child and the father, and

- how a father's relationship with his child affects his participation in self-development activities like job training programs.

- **Focus on both the father and the child.** Perspectives of the father and the child regarding the father's roles and the father-child relationship may differ markedly. Because both perspectives are important, research should encompass interviews with both fathers and children whenever possible.

- **Construct new models to examine union formation and dissolution.** Current models that examine union formation and dissolution are based on economic models focusing on traditional marital unions. There is a need for new models that incorporate how and why nonmarital unions, including cohabiting and noncohabiting unions, form and dissolve. However, many surveys do not collect the data needed to develop alternative union formation models. Perhaps content changes can be incorporated into on-going surveys, such as the National Longitudinal Survey of Youth (NLSY-97), the National Education Longitudinal Survey (NELS) and the Adolescent Health Survey.

- **Revise and/or expand existing surveys.** There is general consensus that existing surveys should be revised or expanded and that, for instance, a male supplement should be added to the National Survey of Family Growth (NSFG). Other recommendations are to add a fatherhood module, including more items on custody, visitation and child support, to the Survey of Program Dynamics (SPD) the Current Population Survey (CPS), and the Survey of Income and Program Participation (SIPP), to include enhanced father-related questions on the NLSY's child interview and on the Youth Risk Behavior and the Behavior Risk Factor Surveys; and to readminister the family functioning segment of the National Health Interview Survey (NHIS).

- **Include a core set of items on surveys.** New or revised surveys should include a core set of questions to facilitate analyses and comparisons across surveys. For instance, they should include questions that identify both the mother and the father and their relationship as biological, step, or adoptive parents of the focal child. In addition, a basic question about whether there is a nonresident parent should appear consistently and with the same wording across surveys, along with items about the nonresident parent including race/ethnicity, age, education, and employment status at the birth of the child.

- **Design a new survey.** After careful consideration of the strengths and weaknesses of existing surveys, one long term goal is the design of a new survey on fathering with a sampling frame that includes males who are often underrepresented in current data collection efforts. In addition to a new survey on fathering, another recommendation is a national survey of men's sexual behavior that includes both teen and adult males.

- **Identify fathers on birth certificates.** Birth certificates are a practical place to identify marital and nonmarital relationships between mothers and fathers. A long-term recommendation is a fuller set of birth certificate information about the father and the parental relationship. A short-term recommendation is to require states to request the father's name and address information on the birth certificate in both marital and nonmarital circumstances, when the father has acknowledged paternity.

- **Conduct more research on the undercount and underreporting of fatherhood.** Part of the underrepresentation of fathers in surveys is due to an undercount of fathers who are tenuously attached to households and part is due to underreporting by men who are interviewed but do not report that they have children living elsewhere. New methods are needed for finding fathers and asking appropriate questions. Suggested sampling strategies include the addition of the incarcerated population and the military population when feasible and the use of administrative records to locate fathers whose names are not reported by respondents in household surveys. The use of smaller qualitative studies could be particularly useful in learning how to better ask specific questions. It should be noted that since finding fathers is difficult, the tendency to move more and more toward phone surveys may not be productive.

- **Conduct more qualitative research.** Ethnographic and other qualitative studies that include a diverse representation of fathers have the potential to capture the full range of fathers' roles and activities. In addition, qualitative methods provide the opportunity to explore specific questions from large surveys in greater depth and to determine the appropriate wording of questions and the interpretation of answers. The insights gained through qualitative investigation can enhance survey methodology. For example, ethnographic findings have been used to distinguish between tenuous attachment and permanent residency in households, which has been useful for large survey construction.

- **Improve methods used for collecting both sensitive and subjective information.** The use of audio computer-assisted self-interviewing and monetary incentives appears to increase the reporting of sensitive information. Additional methodological research is needed to determine the most effective ways to collect sensitive information and information on subjective realms, such as motivations, attitudes and values toward male fertility, family formation, and parenting.

- **Carefully train interviewers.** Careful selection and training of interviewers is especially important in light of the sensitive and subjective nature of some of the items suggested for future studies. For instance, in the case of qualitative studies focusing on very in-depth and personal information, interviewer-respondent rapport is very important. Establishing trust and legitimacy in the community and the household is essential to gaining cooperation from respondents.

The conference ended with a commitment from the working group on Targets of Opportunity and Trade-Offs to incorporate substantive points and methodological recommendations from the conference in their report to the Interagency Forum on Child and Family Statistics.

Chapter 3:

Male Fertility and Family Formation: Research and Data Needs on the Pathways to Fatherhood

Chapter 3: Report of the Working Group on Male Fertility and Family Formation

Christine Bachrach, Ph.D. (Co-chair)
Freya Sonenstein, Ph.D. (Co-chair)

Introduction

The experience of fatherhood for American men has been dramatically altered in recent decades. Men are now more likely than ever before to live separately from their children and to father children outside of marriage. Many men experience fatherhood as a sequence of relationships with children, some biologically theirs and some the children of spouses or partners. These new facts of fatherhood derive from pervasive changes in fertility and marriage patterns that have reshaped the ways in which American families are formed. The Male Fertility and Family Formation Working Group was created to address the processes that lead men to becoming fathers and influence the conditions under which they do so. Its mission included reviewing the state of knowledge about fertility and union formation and dissolution among men, and suggesting needed data and research to advance our understanding of these issues and to inform policy. The Working Group included 30 scientists from universities, private research institutes, and federal agencies representing diverse interests and expertise.

This report summarizes the findings and recommendations of the Working Group. In the first section, we argue that information and research about male fertility and unions are critical to understanding fatherhood and to social policy concerned with fatherhood. In subsequent sections, we provide a brief review of what is currently known about specific aspects of male fertility and family formation, discuss what gaps exist in research and data, and suggest how these gaps might be filled. These sections focus on male fertility; union formation and dissolution; the interrelationships between fertility and unions; reproductive health; and theory and methodology. We conclude with recommendations for the establishment of indicators, the strengthening of data collection, and the support of research relating to these topics. This report draws heavily from working papers prepared by members of the Working Group for a workshop held January 16-17, 1997. The complete papers are appended in Appendices B through I.

Setting the Stage for Fatherhood: Male Fertility, Family Formation, and Fathering

Most people think of fatherhood in terms of *men who are fathers*, and ignore the vital demographic and social processes that bring men into fathering roles and influence the circumstances under which they act out those roles. We argue that a proper and complete understanding of fatherhood is impossible without recognizing and accounting for these larger processes; we argue that male fertility and union formation and dissolution are essential to understanding fatherhood. Our case rests on three points: historically, fatherhood has changed largely because of changes in these social and demographic processes; theoretically, these processes are integrally intertwined with the nature of fathering itself, and in terms of policy, opportunities for improving the lives of fathers will be missed if these processes are ignored.

Historical changes

Historical changes in marriage, fertility, and normative attitudes toward family behaviors have played a central role in reshaping fatherhood. The "disenfranchised dad" is not a result of changes that have affected men in stable marriages but a result of changes that have moved fatherhood increasingly out of the realm of stable marriage. Among the most important of these changes has been the decline in marriage and the increase in divorce. Marriage boomed following World War II but then began a steep decline during the 1960s and 1970s. Between 1964 and 1990, the median age at first marriage increased from 22.4 to 25.9 for men; from 20.4 to 24.0 for women, returning to patterns seen in the last century (Clarke, 1995). As marriage declined, nonmarital cohabitation increased. Although increases in cohabitation nearly offset the decline in marriage (Bumpass and Sweet, 1989), the effect was to substitute less stable unions for more stable ones. Marital instability was also rising dramatically during the 1960s and 1970s, sharpening a long-term trend that had been underway for most of this century (Cherlin, 1992; Thornton, 1994). Whereas only a small fraction of marriages contracted in the latter part of the nineteenth century ended in divorce, today demographers project that well over one-half will be terminated by marital discord (Martin and Bumpass, 1989; Bumpass, 1990). The likelihood of marriage following divorce has declined as well.

These changes in union formation and dissolution are closely intertwined with changes in the circumstances and timing of fertility. Postponement of marriage was accompanied by a surge in premarital sex, and a steady increase in the proportion of teenagers who were sexually active. As the interval between the initiation of sexual activity and marriage lengthened, childbearing outside of marriage increased dramatically. The proportion of children born to unmarried women rose steeply, from about 6% in 1960 to one-third in 1994 (Ventura et al., 1995; 1996). This trend was fueled in part by rising rates of nonmarital pregnancy, and in part by declining proportions of premaritally pregnant couples who opted for marriage (Ventura et al., 1995).

These trends had a dramatic impact on the circumstances of fathers and children. The percent of family groups with children that included two parents declined from 87 percent in 1970 to 72 percent in 1990; among black families this decline was even steeper, from 64 to 39 percent. The number of female-headed families with children increased, first as a result of increases in marital dissolution, and subsequently as a result of increased out-of-wedlock childbearing (U.S. Bureau of the Census, 1992). The number of children involved in divorce each year approximately doubled between the early 1960s and the mid 1970s (Clarke, 1995). The proportion of children in single-parent families who were living with a never-married parent increased from 7% in 1970 to nearly one-third in 1990 (U. S. Bureau of the Census, 1992). Declines in marriage, increased marital instability, and increased out-of-wedlock childbearing have acted as demographic wedges, tending toward the separation of men from their children.

The demographic changes have been accompanied by changes in values and attitudes concerning marriage, nonmarital sex and childbearing, and appropriate roles for men and women. Since the mid-twentieth century, there has been a dramatic weakening of the normative imperative to marry and to stay married, although most Americans continue to value marriage and family life (Thornton, 1989), expect to marry, and view divorce in negative terms. At the same time, the normative proscriptions against premarital sex, nonmarital cohabitation, and out-of-wedlock childbearing have declined dramatically, with large numbers believing that living together before marriage is a good idea. Contraception is widely endorsed, and most Americans approve of abortion under at least some circumstances (Blendon, et al., 1993). These changes are intertwined with structural and ideological shifts in gender norms. The increasing participation of women in work outside the home has coincided with a new revolution in norms regarding family roles. Recent evidence suggests that both men and women are now increasingly rejecting the traditional roles and obligations of a conventional family. These normative changes have tended to undermine social support for the family and have greatly reduced the control of families and societal institutions over the personal decisions of individual women, men, and couples. (Thornton, 1989; 1995).

Theoretical Linkages

In addition to being historically important, **the processes of union formation and dissolution and the processes of male fertility themselves have important theoretical implications for fathering.** The nature of fathering roles, expectations, and behaviors are linked to (1) the circumstances in which biological fatherhood occurs and (2) the nature of men's relationships with the biological mother of their children.

(1) *The circumstances of biological fatherhood.* The timing of fatherhood in relation to the development of economic self-sufficiency, maturity and personal responsibility are important predictors of the personal resources that men bring to fatherhood. Traditional notions of what it means to be a father require a man to provide resources - normally earnings from a steady job - to support his children. If a young man becomes a father before he is able to do this, he cannot carry out this role. Ethnographic research (Furstenberg, 1995) suggests that even in the presence of strong emotional commitment to support the child, the inability to provide economic support seriously undermines a man's sense of competence as a father and ultimately his involvement with his child.

In addition, the process of becoming a father is likely to affect a father's investment in the child. Most births to unmarried couples (and a substantial portion of births to married couples as well) are the result of pregnancies reported as unintended by the mother. What little evidence exists on this question suggests that the quality of parenting and child well-being are related to the extent to which births were wanted and planned (Brown and Eisenberg, 1995). When children are the unintended consequence of sexual activity, as is often the case for children born to unmarried couples, they begin life at a disadvantage.

For men, the path to an unplanned birth has unique aspects that may exacerbate the implications for fathering. Modern methods of birth control and legal abortion have given women more control over their reproductive lives, but have not done the same for men. Aside from condoms and vasectomy, men have no direct control over contraception, and they have no legally recognized part in the decision to carry a pregnancy to term. The only foolproof way for a fertile man to prevent unplanned fatherhood is to abstain, an option that is poorly supported by peer norms and social controls. Men's relative lack of control over their reproduction may contribute to a reduced perception of responsibility for the children they father, as well as low levels of investment in children.

(2) *Relationships with mothers.* Research suggests that the nature of fathering is dramatically affected by the relationship between biological father and mother. Even in a stable, coresident family, it is sometimes a challenge for mothers and fathers to collaborate in providing care, affection, and material resources to their children. When mothers and father hold primary ties to other partners or family members, these ties often create obligations and expectations that conflict with parenting responsibilities. Thus, for example, if a young father lives with his mother and earns little money, he may contribute what he has to his mother's support rather than his baby's. If a divorced mother remarries, the stepfather may take on fathering responsibilities that marginalize the biological father's role.

Coresidence with children is closely linked with men's relationships to women and is a central factor in determining the nature of fathering roles. The amount of contact between noncustodial fathers and their children is alarmingly low, and typically decreases over time (Mott, 1993; Furstenberg, et al., 1983). Provision of child support is closely related to the amount of contact with the children. Not only do biological ties to children become less important when the children live elsewhere; any children who do reside with the father (e.g., those from a remarriage) receive more attention. Seltzer and Brandreth (1994) show that the attitudes of nonresident fathers toward paternity varies by resident child characteristics rather than biological linkages.

Even among resident or nonresident fathers, fathering is influenced by the status and history of the union with the mother. Nonresident divorced fathers have a different pattern of involvement with their children than never married fathers. Among coresident parents, it means something very different to be a stepparent compared to a biological parent (Marsiglio, 1995). We know that, in general, cohabiting couples are less committed to each other than are married couples, but know little about commitment in cohabiting couples with children, either to each other or to their children.

Relationship transitions are also important. The involvement of fathers in their children's lives shifts as families break apart, re-form, and add or subtract members. There is a large and growing body of literature which examines the consequences of relationship transitions for the development of children. If, as recent evidence (Wu, 1996) suggests, stability in family relationships is a critical factor affecting child outcomes, then it may be impossible to study the impact of fathering on child well-being without accounting for relationship transitions and their effect on the number of men who act as fathers to the child and ways in which they father.

Policy questions

The processes of male fertility and family formation are critical to policies and programs aimed at strengthening fathers in two ways. First, because they set the stage for how fathers function in their families, understanding them can help to improve and target interventions for strengthening father involvement. For example, one might apply a very different "fix" for a family formed through coercive sex than for one emerging out of a loving and committed relationship. Second, they provide additional points of intervention for fatherhood programs. Too often, current policies address problems only after families fail, an approach that is too late and often does not include the male in definitions of the family unit. Explicit attention to preventing unintended births and supporting stable unions can support fathers by improving the circumstances in which fathering occurs. Key questions for policy include:

(1) *What facilitates or deters paternity establishment when a child is born out-of-wedlock*? Recently significant strides have been made to establish formal paternity for fathers in unwed families. The paternity establishment rate is now near 50%, but welfare reform laws are exerting pressure to push the rate to much higher levels. Results of an Arkansas survey of poor pregnant women found that 80% of the women wanted to establish paternity but less than 40% did so (Welsh, 1995). We know little about the meaning of this new step in family formation and about its determinants and consequences. It is very likely that the nature of relationship between biological mother and father and the sequence of events that led to the birth play a significant role. Does paternity establishment act to foster the continuation of relationships and the stable involvement of fathers or does it act as an economic threat to men driving them away from their families?

(2) *Are there ways to strengthen men's ability to control their own reproduction without undermining women's ability to control their reproductive lives?* Is there a demand for effective reversible contraception for men? Could improved male-oriented or

couple-oriented reproductive health services reduce the rate of unplanned births or strengthen men's involvement in deciding how to resolve an unintended pregnancy? What is the impact of well-designed programs encouraging abstinence among both young men and women? How could such programs be designed to strengthen social support for abstinence among peer groups? Can abstinence messages be combined with contraceptive messages? Conversely, to what extent does unplanned birth result from nonvoluntary sex (either directly or indirectly) and what can be done about this?

(3) *Are there ways to improve the stability of relationships among couples with children?* Ron Mincy (1995) has introduced the concept of the "fragile family" - an unmarried, disadvantaged couple with a child that is trying to develop and sustain meaningful and beneficial roles as parents. He makes a strong case that around the time of pregnancy and birth, the *right* kind of support could strengthen these families and greatly improve the well-being of children. Mincy argues that current policies that emphasize child support payment above all else undermine fathers' ability to sustain relationships with the mothers of their children and undermine their ability to succeed as fathers. Others point to positive associations between child support payment and father involvement found by research studies and suggest that child support policies may have beneficial effects. We need a better understanding of how policies affect the stability of relationships between mothers and fathers, and how those effects may differ in different economic and social contexts.

(4) *What kinds of policies create incentives and disincentives for couples with children to marry and to stay together?* In today's world, married people often receive different treatment by the government than single people do. Married individuals face different tax rates than they would if they were not married. In some states, poor *married* parents are not eligible for programs that are available to poor single parents. Social Security provides survivor benefits only to widows and widowers who were legally married. Age requirements limit the ability of pregnant teens to marry. Understanding how public laws and policies affect individuals' and couples' personal decisions to marry and stay married may provide an important lever for improving the lives of fathers and children. These questions are particularly important - and researchable - in light of new welfare reforms creating variation from state to state in the incentives and disincentives that policies provide for marriage.

(5) *After divorce, how do subsequent union formation and fertility affect fathers' economic support and involvement with children from previous unions, and how do child support, custody and visitation policies affect subsequent union formation and fertility?* New family configurations involving children from multiple unions are incompletely institutionalized (Cherlin, 1992). A better understanding of the consequences of divorce and subsequent family formation for children and parents, and of the effects of policies on

family transitions is needed to inform the evolution of policies and norms that best serve the interests of families.

Research and data addressing these policy questions must be especially sensitive to the substantial variation in male fertility and family patterns among subgroups of our population and the processes that have contributed to this variation. It is very likely that the answers to policy questions will differ depending on the economic, social and cultural circumstances that characterize individual lives and communities. Understanding these sources of difference can make a major contribution to the formulation of effective policy.

A Model of Biological and Social Fatherhood

The distinction between biological and social fathering is critical for understanding how fertility and unions affect fatherhood. As Figure 1 illustrates, fertility is one of several pathways through which men can become social fathers. Fertility creates biological fatherhood, a status that is fixed regardless of how paternal responsibilities are defined or carried out, and revocable only through death of the child (Appendix C). Because women, not men, give birth, establishment of biological paternity in the eyes of the larger world can be problematic. In previous times, strict limitation of reproduction to marriage provided a mechanism for attributing paternity. Today, the process of paternity establishment for the growing number of births that occur outside of marriage is a critical link between biological fatherhood and legally recognized biological fatherhood.

Social fatherhood, by contrast, is not a fixed status. Social fatherhood, which is often referred to as fathering, includes all the child rearing roles, activities, duties, and responsibilities that fathers are expected to perform and fulfill. Involvement in these roles and activities will inevitably ebb and flow over a man's life. As Figure 1 shows, biological fatherhood is only one of several paths to social fathering. Unions formed and maintained with women who are mothers - whether of the man's children or of someone else's children - are another critical path, one that changes in marriage and fertility patterns have made increasingly important. Other paths might include adoption (which confers the legal status of a biological parent), and adopting fathering-like roles for children of relatives or friends. These "other" paths to social fatherhood can be important, but are outside the scope of our working paper. In the following sections, we review what is known about the processes of male fertility and union formation and dissolution, and what we need to know to have a better understanding of fatherhood.

Male Fertility

The process of becoming a biological father begins with an act of sexual intercourse and the nonuse or ineffective use of contraception[1]. To discern how men become fathers, it is therefore critical to understand better the sexual and contraceptive behavior of males, the motivation underlying these behaviors and the factors influencing them.

Whether or not an act of intercourse is protected by contraception is the result of a complicated set of conditions involving two people. First, either partner can use a method of contraception. Men can use condoms or withdrawal; women can use a wide range of methods. Indeed both partners can use protection although this is rare in spite of public health admonitions about the desirability of dual method use to prevent both STD transmission and unintended pregnancies. More frequently, one partner uses contraception while the other does not, implying that the decision to use contraception involves some implicit or explicit bargaining between the partners. Research results indicate that among young men and women, the use of male methods of contraception is more frequent than among older men and women, and that over the course of a relationship there may be a transition from the use of condoms to the use of effective female methods of contraception (Ku, Sonenstein and Pleck, 1994).

A second important condition affecting whether contraception will be used is whether or not the partners desire pregnancy. Miller (1986) has suggested the use of the term "proception" to describe attempts to achieve conception. The conscious choice not to use contraception because pregnancy is desired should be differentiated from the non-use of contraception for other reasons. Just as contraception can involve either partner, proceptive behavior can be jointly adopted by both partners or individually by either the male or female. Underlying this distinction between non-contraception and proception are the motives of both partners. Very little is known about the proceptive behavior of either men or women in the U.S. although some research has been conducted on couples who have difficulty conceiving pregnancies (Marsiglio, 1998).

The bulk of fertility research has focused on contraceptive behavior because its absence often leads to unintended pregnancy, which has been defined as an important social problem in the U.S. (Brown and Eisenberg, 1995). Thus in most of this research proceptive behavior is treated as an exception. Work has been conducted on the motivations of men and women to have children, but it has been limited to married couples (e.g., Beach, Campbell, and Townes, 1979; Bockman, 1984; Fried, Hofferth and Udry, 1980; Miller, 1995; Miller and Pasta, 1996). This research shows that in aggregate married men and women have similar desires for children; most couples agree in desires but a substantial minority disagree, and disagreement leads to delays in childbearing. Regarding the proceptive behavior of unmarried males, there is very little research evidence. Some anecdotes and ethnographic research suggest that nonmarital childbearing in low income communities may be partially the result of the male partner's desire to sire children to prove their sexual potency, to gain status with their peers or to ensure a next generation when mortality and institutionalization rates of young males are high (Anderson, 1989). Since there are currently no data on the intendedness of births from the unmarried father's perspective, the generalizability of these assertions is not known.

---

[1] Exceptions include the use of assisted reproductive technologies such as in vitro fertilization, artificial insemination, and embryo transfer. Although still a relatively uncommon route to biological fatherhood, the use of these methods is thought to be expanding rapidly (Marsiglio, 1998).

Another process that is important in the fertility context are decisions to become sterilized. Opting for sterilization provides a permanent contraceptive guarantee that biological paternity will no longer occur. Many older couples in the U.S. turn to sterilization once they have achieved or exceeded their desired family size. During the last two decades sterilization has become the most widely used contraceptive method used by married couples in the U.S. (Miller, Pasta and Shain, 1991). While females are more likely to undergo the procedure than males, vasectomies are fairly common among men, especially older white males. Data from 1988 indicate that 31 percent of women ages 15-44 were surgically sterilized and 17 percent of their male partners had been sterilized (Mosher and Pratt, 1990). The 1991 National Survey of Men found that more than one fifth of married males ages 35-39 were sterilized. Trend data indicate that while the incidence of male sterilization has grown from the early 1970s, its increase has not been as rapid as increases in female sterilization. It is important to understand why men are less likely to undergo sterilization than women because vasectomies are less costly and physically complicated than female sterilization (Forste, Tanfer and Tedrow, 1995).

A second gate on the route to fatherhood that some men pass through involves the decision about carrying the pregnancy to term or terminating it if the pregnancy was unintended. In many instances the male partner may participate in these considerations and the decision reflects the shared wishes of both partners. When the male and female partners disagree, legal precedent has established that the decision rests with the female in consultation with her physician. In some cases the male partner is never told about a pregnancy while it is occurring, and his opinions about pregnancy options are never solicited. How a man's relationship to his child is colored by the nature of his participation in decisions leading to unintended pregnancy and birth is an empirical question: there are very few studies of unintended fertility among women and none involving men (Brown and Eisenberg, 1995). However, anecdotal evidence suggests that not wanting the child is an important factor in many men's failure to pay child support.

Information about how women negotiate the sequence of reproductive behaviors described above is available but evidence about the male partner's fertility behavior is scant. In the following section, we review what we need to know about male reproductive behaviors and the factors influencing these behaviors. Recommendations about research priorities follow.

Trends in nonmarital sex, unprotected sex, and unintended pregnancies and births.

While the National Center for Health Statistics has periodically collected data on women's reproductive behaviors and fertility outcomes through the National Survey of Family Growth, there is no comparable effort for men. Over the last 15 years a number of ad hoc, researcher-generated national surveys have been launched that provide information about mole reproductive behavior--The National Health and Social Life Survey (Laumann, Gagnon, Michael and Michaels (1994), The National Survey of Men (Tanfer, 1993)), The National Survey of Adolescent Males (Sonenstein, Pleck and Ku, 1989), The AIDS Surveys (Catania et al., 1992), and The National Longitudinal Study of Adolescent Health. In addition, the National Longitudinal Survey of Youth, the National Educational Longitudinal Survey, the National Survey of Children and the Youth Risk Behavior Survey included some questions about sexual activity, contraception and fertility. Many of these surveys were limited to adolescents and/or young adults, and few included fertility as a primary focus.

These studies have provided valuable information about trends in male sexual and contraceptive behavior, showing that:

- age at first intercourse has decreased over the last several decades for males but the decline has not been as steep as the decline among young women. Thus the age gap between male's earlier initiation into sex compared to female's has been narrowed.

- Rates of nonmarital sexual activity have increased for males as the age of marriage has increased and the age of first intercourse has decreased. Again differentials between males and females have narrowed. Among both males and females the number of lifetime sexual partners has increased.

- The use of contraception has risen, and the increase is especially marked in males' use of condoms. The emergence of HIV and other STDs as major public health concerns have fueled efforts to encourage condom use. These efforts have shown some success since the reported used of condoms has risen significantly among males since the early 1980s, especially among teenage males and unmarried males.

There are no reliable data on trends in pregnancies or births to males nor about the intendedness of these pregnancies or births. Vital statistics data collected by the birth registration system could potentially provide evidence of the age and other characteristics of the fathers of children born in the U.S., however these data are biased by the incomplete reporting of information. One in six birth records contain no information about the age of babies' fathers, this proportion rises to over two-fifths for births to teenagers (Landry, 1995). Currently, there is no institutionalized survey that provides information about the fertility and fertility-related behaviors of American men.

Recommendation. In order to identify secular shifts in how men become fathers, basic descriptive information needs to be collected periodically about their rates of sexual activity, their patterns of contraceptive use, the pregnancies that they contribute to, and the outcomes of these pregnancies. Furthermore information is needed on the males' perceptions of their own and their partners' views of the intendedness of these pregnancies and births. To accomplish this objective, the National Center for Health Statistics in cooperation with other agencies should develop an approach to institutionalizing the collection of data about male fertility, either by adding to existing surveys or by launching independent efforts. As part of this approach:

- methodological work should be conducted to develop reliable and valid approaches to measuring male fertility behavior and outcomes;
- for topics where valid proxy information can be collected, existing surveys of women should collect more information about their male partners;
- the appropriate age range for fertility surveys of males should be considered. Surveys of women have been tied to the peak ages of reproduction, but for males the window of reproductivity is much wider;
- the birth registration system needs to improve the completeness of data collected about fathers; and
- an expansion of the National Survey of Family Growth to include men should be pilot tested.

Motivations and attitudes

Very little work has examined the motivation or predispositions of males towards the reproductive behaviors we are examining: sex, proception, contraception, and post-pregnancy behavior. Little is known descriptively about the kinds of predispositions that U.S. males have towards reproductive behaviors, the development of motivation in individuals, or the link between motivation and behavior. The largest body of research has been done on men's motivation to contracept, especially to use condoms, primarily as a result of public health concern about the AIDS epidemic (e.g., Grady, Klepinger, Billy and Tanfer, 1993, Pleck, Sonenstein and Ku, 1993). Other studies have examined perceived responsibility for contraception among men, and found that most men profess that contraception is a joint responsibility (Marsiglio and Menaghan, 1987, Sheehan, Ostwald and Rothenberger, 1986, Pleck, Sonenstein and Ku, 1993). More attention must be paid to men's own motivation to contracept and to avoid contraception, and their perceptions of their partner's motivation. Further work is needed to understand the intersection of motivation to avoid pregnancy with the motivation to avoid STD transmission. Most existing research has concentrated on teenage males or slightly older cohorts. There is a need to understand better the contraceptive motivation of adult unmarried males.

Other understudied areas include males' motivation to engage in sexual intercourse versus abstinence, to impregnate partners, to have children, to terminate an unintended pregnancy or to obtain a vasectomy. Unmarried men, both those in stable and transient relationships, are the least studied population in terms of their views of pregnancy and childbearing. Yet it is these men that are associated with the pregnancies, births and children that are viewed as social problems in the U.S. Their attitudes and predispositions regarding these reproductive behaviors are likely to influence the probability that they will become fathers either unintentionally or intentionally.

Recommendation: Males' motivation and perceptions influence males' readiness to engage in nonmarital sexual activity, to contracept, to impregnate partners and to father children. Relying solely on studies of females' motivation will only provide a partial understanding of fertility trends. To develop a more complete understanding of male motivation and its links to behavior:

- Research on the motivation of males to engage in sexual activity, to contracept, to impregnate partners, to father children, to obtain vasectomies and to terminate unintended pregnancies should be conducted.

- Methodological studies to develop better measures of motivation in these areas are needed.

- In-depth studies of special populations which focus on theory building and a more comprehensive understanding of the motivational underpinnings of reproductive behavior should be conducted.

- Measures of motivation with known levels of reliability and validity should be included in representative sample surveys of males like the National Longitudinal

Survey of Youth, the National Educational Longitudinal Survey, and other studies that could measure the fertility behavior of men.

What factors influence male reproductive behaviors?

Sources of influence on reproductive behaviors are complex, and a wide range of theoretical frameworks have been employed to characterize the precursors of reproductive behavior, primarily among females. With some adaptation these conceptual models can undoubtedly be applied to male behavior also. These frameworks selectively emphasize various influences on behavior including biological factors, individual characteristics and predispositions, partner dynamics, normative influences from family, peer group, community and religious agencies, gender role ideology, and other cultural messages from mass media, the polity and the economic market.

(1) Biological Factors. While there is recognition that human beings, like other primates, are physiologically programmed to engage in sexual behavior, there is surprisingly little work that examines the contribution of physiological and biological factors to sexual behavior in either males or females. It can be argued that a comprehensive understanding of reproductive behavior must acknowledge and incorporate the influence of innate dispositions on behavior as well as the potential for reverse causality. Very little research on reproductive behaviors factors in the influence of physiological factors, although the technology is becoming available to identify genetic markers, to measure hormone levels and obtain other bio-measures from subjects of behavioral research.

Recommendation: Basic research is needed on the links between physiological traits and reproductive behaviors for men, and also for women.

(2) Family Influences. The emergence of male and female orientations to reproduction appear early in development and seem to result from the complex interaction of physiology, individual history, family experience, and normative and cultural influences. Gender differences in orientation to nurturing children, for example, emerge at ages 4 through 6 (Miller, 1995). The characteristics of family of origin--family structure, religiosity, education levels, social class, and employment status of parents, for example--are known to be associated with age of initiation into sexual activity, contraceptive use, and experience with early pregnancies and births among teenage females and males.

Recommendation: Longitudinal studies of both boys and girls are needed that begin either at birth or soon thereafter to follow children into early adulthood to gain a better understanding of the factors leading to the development of adult expectations and behaviors regarding sex, pregnancy, childbearing and childraising.

(3) Gender role ideology. Among teenage males reproductive behaviors show a clear correlation with the views that they hold about how men should behave. Males who espouse more traditional views of masculinity are more likely to initiate sex early, to use condoms less frequently, and to have more sexual partners (Pleck, Sonenstein and Ku, 1993). More research is needed on the development of gender role ideology and its influence on reproductive and parenting behavior. Greater attention should be paid to changes in gender roles within and outside sexual relationships.

Recommendation: In sample surveys containing measures of reproductive behavior, more information should be collected about gender role attitudes. In particular, greater information about men and women's attitudes towards male gender roles need to be added to the conventional measures used to gauge attitudes towards women's gender roles.

(4) Peer and Community Influences. The social contexts that individuals live in provide continuous socialization into and reinforcement of the group's expectations regarding behavior. For example, the attitudes and norms of a young man's peers will likely influence his reproductive behavior. A particularly promising line of fertility research has examined the contextual effects of various normative environments on reproductive behaviors of both males and females (Billy, 1994). These studies have been facilitated by two technological advances: (1) the development of linked data sets that are multi-level and provide measures of neighborhood, school, peer group, and polity characteristics and (2) a burgeoning literature on hierarchical statistical approaches.

Recommendation: Efforts to create multilevel data sets should be supported. The feasibility of adding contextual measures to sample surveys that are currently freestanding should be explored.

(5) *Research strategies.* Existing data sets offer further opportunities to test explanations of male fertility behavior as well as to examine the links between these behaviors, relationship dynamics and parenting outcomes. Additional analyses of these data from the U.S. and other countries should be supported. This strategy takes advantage of the considerable investment that has already been made in data collection. Consideration could be given to developing a network of researchers to foster collaboration and facilitate multiple tests of research questions across data sets.

Recommendation: Existing data sets should be thoroughly mined for the insights they provide about male reproductive behavior.

It is desirable to complement large scale survey strategies with scientifically rigorous in-depth studies of smaller samples. Such studies could contribute to theory development and theory testing. They could use a range of promising methodologies including but not limited to ethnography, indepth interviewing, focus groups, or simulation games. They could also be linked to the large scale sample surveys to provide multi-method testing of explanatory theories.

Recommendation: Data collection strategies should not be limited to sample surveys. A range of studies using a variety of methods should be supported and offer the best opportunity to capture and test explanations of male fertility behavior.

Male and female reproductive behavior is the result of a long developmental process which is influenced by a complex array of biological, social and cultural forces. To understand current behavior, one must comprehend what has happened before. Therefore, we believe that a longitudinal study that follows children into adult roles would provide an important opportunity to comprehend how adult reproductive behaviors are influenced by a variety of developmental forces. It would also permit an examination of how events-- such as school completion or incarceration--influence reproductive behavior.

Recommendation: A longitudinal study of children--boys and girls--should be begun that traces their development over the course of their childhood and their transitions into adult roles. Consideration should be given to starting with a birth cohort. Although our current focus is on transitions into reproductive roles, there would be greater payoff in taking a more comprehensive view of psycho-social development.

Union Formation and Dissolution

As discussed previously, the formation and dissolution of relationships with women have a profound effect on men's roles as social fathers. Cohabitation, marriage, separation, divorce, and remarriage influence whether a man lives in the same household as his biological children, his emotional and social interactions with them, and his economic support. These processes also lead men to become social fathers to the biological children of other men. The dramatic changes that have occurred in when and how men form sexual unions and in the stability of these unions through the child-rearing years underscore the importance of these processes for understanding fatherhood. This section reviews what we know about the meaning of different types of unions and the determinants of union formation and dissolution, and suggests needed data and research directions.

The Meaning of Marriage and Cohabitation

Marriage is characterized by a public, legally-binding, long-term commitment by an individual to another individual and to their union. The marriage contract explicitly includes sexual fidelity and mutual support, even during bad times. Virtually all married men and women say, when asked, that they expect to be monogamous and that they expect their spouse to be faithful to them (Tabulations from the National Health and Social Life Survey, 1992). Marriage vows include the promise to stay together, no matter what happens, until the union is broken by the death of one of the parties. Of course, this is not what happens to many marriages; according to the best guesses of demographers who study marriage well over half of all recent marriages will end in divorce rather than death (Martin and Bumpass 1989). But this is not the ending that people expect when they marry, and the vast majority of all married men and women think that their marriage will last.

Marriage is by its very nature a public commitment between two adults. The public commitment brings with it public recognition of the privileged and special relationship between husband and wife. Marriage as an institution is supported by social norms, by organized religion, and by laws and public policies. Almost all religions sanctify marriage and promote the establishment and maintenance of family relationships and the expression of love, intimacy, and childbearing within them. They also discourage sexual intimacy and childbearing outside marriage (Aldous 1983).

People who expect to be part of a couple for their entire lives--unless something awful happens--organize their lives differently than people who expect to be single. The marriage contract, because it is long term, encourages husbands and wives to make decisions jointly and to function as part of a team, and to develop specialized skills which benefit the couple. Marriage assumes sharing of economic and social resources and what we can think of as co-insurance. Married couples benefit--as do cohabiting couples--from economies of scale. Couples living together spend much less per capita on many of the costs of living, especially housing and food. Marriage connects people to other individuals, to other social groups (such as their in-laws), and to other social institutions which are themselves a source of benefits. Some consensus exists that marriage improves women's material well-being and men's emotional well-being, in comparison with being single (Waite, 1995).

Cohabitation has become a more popular union status but its defining characteristics are not yet fully understood. It has some but not all of the characteristics of marriage. Cohabitation does not generally imply a lifetime commitment to stay together, and cohabiting unions are much less stable than marriages. Research using data from the National Survey of Families and Households has shown that 90 percent of cohabiting couples either marry or separate within five years (Bumpass, Sweet and Cherlin, 1991). Evidence from Canada suggests that about half of cohabiting couples separate and half marry (Wu and Balakrishnan, 1995).

Cohabitants are much less likely than married couples to pool financial resources, more likely to assume that each partner is responsible for supporting himself or herself financially, more likely to spend free time separately, and less likely to agree on the future of the relationship (Blumstein and Schwartz 1983). This uncertainty makes both investment in the relationship and specialization with this partner much riskier than in marriage, and so reduces them. Cohabitants seem to bring different, more individualistic values to the union than do those who marry (Clarkberg, Stolzenberg, and Waite, 1995). Whereas marriage connects individuals to other important social institutions, such as organized religion, cohabitation seems to distance them from these institutions (Stolzenberg et al. 1995; Thornton, Axinn, and Hill 1992).

Very little is known about other types of stable relationships between men and women who may even have children together but who live apart. In other cultures, such as in the Caribbean, these might be designated "visiting" relationships. Most surveys do not count these relationships and it is fair to say that social expectations about the mutual rights and obligations for individuals in these relationships are not commonly understood.

Changes in family law and in societal norms have changed the meaning of marriage in recent decades. Until quite recently "husband" as a legal status historically carried a different set of rights and obligations than the legal status of "wife." This view of marriage was part of a larger package of supports and restrictions. Legal marriages could generally only be dissolved, if at all, only by egregious breach of the marriage contract. In some states, consent of both parties, or a lengthy period of legal separation, was required to obtain a divorce. We have moved from this view toward a view of marriage as a contract that reflects an agreement between the individuals involved, an agreement that they are free to structure in any way they wish. This view accepts as valid prenuptial agreements that absolve spouses from any continuing financial obligation for each other in the event of divorce, and permits no-fault divorce at the wish of either spouse regardless of the other spouse's desires or adherence to the marriage contract.

The legal view of marriage as an arrangement that lasts only as long as it suits both partners undercuts the supports that allow individuals to invest themselves in their marriage. In a world in which at least half of all marriages end in divorce, a world in which both spouses are expected to be financially self-sufficient within a fairly short period after divorce, it becomes risky to put much time, money or energy into one's marriage and rational to invest in oneself or in portable skills and goods. So the structure of incentives has changed in a way that weakens marriage as an institution (Weitzman, 1985). Married couples are more likely to dissolve their marriage, all else equal, if they live in a state with relatively liberal divorce laws than if they live in a state with relatively restrictive divorce laws (Lillard, Brien and Waite, 1995).

Recommendations: Because of the shifts in the types of unions men and women form, we need better information about these relationships-- about new formulations of marriage, cohabitation and other types of relationships. Therefore we need to:

- Conduct both substantive and methodological research concerning the meanings of different kinds of unions today, including marriage, cohabitation, and non-coresidential unions. What do people expect from different kinds of unions and what expectations and preferences motivate their choices? How and why does this vary among subgroups of our population?

- Conduct research on the historical trends in union formation and dissolution, with particular emphasis on explicating the explanations and meanings of those changes.

What influences the formation and dissolution of different types of unions?

Given the historical centrality of the institution of marriage, it should not be surprising that decisions about union formation and dissolution are intertwined with, influenced by, and consequential for numerous other dimensions of life, including the economy, employment, schooling, economic and psychological well-being, and religious institutions. Furthermore, marriage is frequently an intergenerational process in that parents are generally influential in decisions about dating, courtship, and union formation.

Many dimensions of the parental family influence the union formation and dissolution experience of their children. Across a range of family issues, including premarital sex, cohabitation, marital timing, and divorce, the values and attitudes of parents influence the attitudes and behaviors of their children (Thornton, 1992; Axinn and Thornton, 1996; Moore et al., 1986). The union formation and dissolution experiences of parents are related to the attitudes and experiences of their children (Axinn and Thornton, 1996; Amato and Booth, 1991; Miller et al., 1987; Lye and Waldron 1993; Moore and Stief, 1991). For example, parental divorce is associated with more positive attitudes toward premarital sex and greater frequency of sexual intercourse among unmarried males and females. These intergenerational effects appear to hold for both males and females. Parental economic standing is positively related to age at marriage for both men and women. High levels of divorce and dissolution for this generation of families may imply fundamental change in the divorce and dissolution probabilities of the next generation. Although we know that the parental generation influences the union formation and dissolution experiences of young people, the causal mechanisms producing these effects are not well understood. It is not clear how genetic factors interact with social influences, and what social mechanisms are responsible for intergenerational effects. Little is known, as well, about how siblings and other family members influence union formation and dissolution.

Union formation and dissolution are also intimately interconnected with other dimensions of an individual's life. Premarital sexual experience--including its occurrence, pace of initiation, frequency, number of partners (as well as attitudes)--is strongly related to age at first dating and age at first going steady (and perhaps as well to the timing of cohabitation and marriage) (Miller et al.,1986; Thornton, 1990). It is not clear whether these strong correlations in the initiation of various steps in the courtship and union formation process are the result of genetic or social forces, and, if social, the ways in which the social forces operate.

Education and employment are very important elements in the union formation process. Young people who are performing well in high school and who have ambitious educational aspirations are less involved sexually than are young people with lower school performance and lesser aspirations in high school (Zelnik et al., 1981; Moore and Waite, 1977). School accumulation (years of schooling) increases the rate of entrance into marriage while decreasing the rate of cohabitation for men (Goldscheider and Waite, 1986; Teachman et al., 1987; Blossfeld and Huinink, 1991; Hoem, 1986; Thornton et al., 1995). The importance of employment, careers, and earning capacity in defining the ability to marry seems to be particularly important for men, although it may becoming more important for women as well (Oppenheimer, 1994; Oppenheimer and Lew, 1995; Oppenheimer et al., 1996; Lichter et al., 1991).

Other types of life experience, such as military service, incarceration, and involvement in illegal activity, may also influence patterns of union formation and dissolution. These experiences disproportionately affect the lives of men, and we know little about their effects.

Personal characteristics and attitudes are also important. High levels of personal religious involvement and commitment are associated with lower levels of acceptance of divorce, cohabitation, premarital sex, unmarried childbearing, not marrying, and remaining childless (Thornton and Camburn, 1989; Sweet and Bumpass, 1990; Lye and Waldron, 1993; Klassen et al., 1989). Religiosity--both attendance and importance--also reduces the cohabitation rate and increases the marriage rate (Thornton et al., 1992), and reduces marital instability. However, we know little about the factors producing these effects.

Union formation and union dissolution behavior are associated in important ways (Lillard et al., 1995; Axinn and Thornton, 1992). Cohabitation is strongly and positively associated with divorce. It is likely that this empirical correlation is the product both of cohabitation being selective of people who have higher risks of divorce and cohabitation itself increasing the risks of divorce. Unfortunately, we still know very little about the precise nature of either the forces selecting people into cohabitation or marriage or the ways in which cohabitation experience might change people's marital stability. Given that the correlation between cohabitation and divorce is substantial, the sorting out of the causal interconnections promises to provide substantial information about the nature and meaning of cohabitation, marriage, and divorce.

Another area where knowledge is very limited is couple negotiation and decision-making. Union formation always involves two people, who must agree to enter a partnership and what kind to form. Yet the vast majority of the research on the formation of marriages and cohabiting unions focuses on the behavior of only one of the partners, usually the woman. Single sex models--or any research focused on one half of the pair--can tell us little about the ways the couples negotiate the future of the relationship and the terms under which it will continue. Similarly, research on divorce based on the behavior of individuals tells us little about the ways that couples decide to end their marriage. Any understanding of the role of couple decision-making in marriage or cohabitation requires a fundamentally different approach than has been used to date. This might involve intensive interviewing of both partners in dating couples, as only one of a number of possible approaches. We know very little about appropriate research techniques to shed light on these inherently dyadic processes.

Recommendations:

- Conduct research on the causes and consequences of union formation and dissolution. Of particular importance are the causal processes and mechanisms that lead people into unions, influence them to form different types of unions, and result in the dissolution of their unions. Among the causal factors where additional research is needed are: the legal system and public policy; parents, siblings; religion; values and attitudes; physiological and genetic factors; education; and the work place.

- Study the ways in which individuals and couples make decisions about the formation and dissolution of unions. How do individuals negotiate with potential and current partners? What are the processes leading up to union formation and dissolution?

Research agenda and data needs

As union formation and dissolution have evolved in recent years, the data requirements for describing and explaining behavior and trends have become more complex and rigorous. When coresidence, sex, childbearing, and childrearing were all primarily centered around the institution of marriage, it was straightforward to limit the unions of interest to marriage and to focus attention exclusively on entrance into and exit out of marriage. However, the amount of action in these domains that is occurring outside of marriage makes it increasingly difficult to justify scholarly studies of union formation and dissolution in the United States that do not extend themselves beyond marriage and divorce. The number and types of relationships that can and do exist between two individuals is much broader and more fluid than simply marriage and even cohabitation. Focus groups conducted among adolescents indicate a range of different types of relationships, from the more traditional "boyfriend/girlfriend" with sexual monogamy, to unions described as "associates," where sexual intercourse is the common denominator that binds the two individuals (Anderson, 1989; Sugland, Wilder and Chandra, 1996). Thus, studies which solely address unions formed by marriage or co-residence fail to address a broader context of interpersonal relationships. Such relationships have important implications for fatherhood and the well-being of children born into those unions.

Recommendation: Ensure that data collections focusing on union formation and dissolution be designed to include information about a wide range of union types. All union formation and dissolution studies should obtain full marital and cohabitation histories. For some studies it will be necessary to obtain extensive information about additional types of unions as well.

While we argue that the concept of marriage is no longer sufficient to capture the concept of union, we also believe that it continues to be a primary concept in studies of union formation and dissolution. This means that empirical studies need to study the processes leading into marriage and those leading out of marriage. It also means that as a minimum we need to obtain full marital histories in empirical studies, including dates of all marriages, separations, and remarriages.

We also believe that it is important to collect information on cohabiting unions. This is important because these unions involve several of the central dimensions historically associated with marriage, including coresidence, intimacy, and economic interchange. They also frequently involve childbearing and childrearing. In addition, they frequently are part of the process leading up to marriage itself. The growing importance of cohabitation makes it important for studies of union formation and dissolution to ascertain full histories of individual entrance into and exit out of such unions. Furthermore, the growing acceptance of nonmarital cohabitation makes it possible to collect this information successfully--something that has now been accomplished in multiple large-scale studies.

Recommendation: Wherever possible, basic studies of union formation and dissolution should ascertain complete marriage and cohabitation histories, including dates of all entrances into cohabitation and marriage, all separations from cohabitation and marriage, and all divorces.

We believe that qualitative studies can be valuable resources in increasing our understanding of union formation and dissolution. There is relatively little qualitative work on the formation of stable unions and the factors that serve to maintain such unions over time. The existing work suggests that notions about gender roles, sexual identity and ideology, cultural scripts regarding male/female relations, peer groups/family support networks and contextual factors (e.g., economic opportunities), significantly influence both the initiation of unions, the type of unions that are formed, and the stability of unions over time. Qualitative work shows that men and women (and even extended kin) often assess the worth of the male as potential spouse or long-term partner in terms of the man's ability to be a breadwinner. Less stable or transitory unions tend to form when the female (and extended family networks) sees the male as "not having much to offer" and the male feels unable to uphold his responsibility as provider (Stack, 1974, Anderson, 1990; Sullivan, 1993). Qualitative research can help to document how males (and females) define a "union" as well as the various types/range of unions that males (females) tend to form, how types of unions differ, which types are most acceptable to men (versus women), what social and cultural meaning is attributed to different unions, the specific purpose for forming certain types of unions (e.g., physical versus emotional satisfaction) and what kind of satisfaction (emotional or otherwise) men (and women) derive from certain unions. One could also explore under which types of unions childbearing is acceptable/unacceptable, appropriate/inappropriate, and whether there are unique differences across race/ethnicity or socioeconomic subgroups and the life course for all of the above.

Recommendation: Conduct additional data collection and analysis using qualitative approaches. Expand the utilization of multi-method approaches in studying union formation and dissolution.

Historically, our major efforts for monitoring trends in union formation and dissolution have focused on marriage and divorce. Our primary data sources for this purpose have been the vital registration system, the decennial census, the annual Current Population Surveys, and the occasional marital history supplements to the Current Population Survey. However, while these data sources have provided solid information about marriage, separation, and divorce, they collect limited cohabitation information and the cohabitation data they do collect do not include histories of entrance into and exit out of cohabitation. Because of this, they are not fully sufficient as monitors of levels and trends of union formation and dissolution.

Much of our knowledge concerning the determinants of union formation and dissolution comes from studies that include panel or life history components. Among the studies that have been particularly valuable for this purpose are the Panel Study of Income Dynamics, the National Longitudinal Study of the High School Class of 1972, High School and Beyond, National Study of Families and Households, the National Survey of Family Growth, National Longitudinal Survey of Youth, and the Intergenerational Panel Study of Parents and Children. These studies are maximally useful when they collect full marital and cohabitational histories from participants. Much can be learned from further analyses of these datasets, and much more from expanding them to include information that could improve our understanding of union formation and dissolution.

Recommendation Expand and maintain data collection systems for monitoring future trends in union formation and dissolution. Current data collection efforts should be expanded and supplemented to include information that permits monitoring attitudes, values, and behavior and more information useful for studying the causes and consequences of union formation and dissolution.

While currently existing and planned data sets are valuable for studying union formation and dissolution, we believe that each of them are limited in ways that restrict their usefulness for answering many of the important substantive questions we have about the causes and consequences of union formation and dissolution patterns. Since most of these data sets were designed for other purposes, they are missing some of the key elements for definitive studies of union formation and dissolution. Serious consideration should be given to designing and fielding a new study designed explicitly for the purpose of understanding union formation and dissolution. Such a study would be longitudinal, and begin early in the life course; it would include both males and females and address the gendered nature of relationships; it would include a broad range of determinants and processes of union formation and dissolution, including genetic influences and decision-making processes; it would ideally be designed to capture intergenerational, sibling, and peer influences; and it would include a qualitative component.

Recommendation Plan and field a new study that is designed explicitly to examine union formation and dissolution. Such a study should be designed explicitly to study causes and consequences, negotiation and decisionmaking, and the processes leading up to the formation and dissolution of unions.

The Interrelationships of Male Fertility and Unions

Male fertility is closely intertwined with the sexual relationships men have with women. Although biological fatherhood may require no more than sexual intercourse with a fecund woman, chances of a man having sex, impregnating a woman, and becoming a biological father are all influenced by the nature and dynamics of his relationships with women. These factors also affect the chances of his being legally recorded on the birth certificate, recognized informally as the child's father, or given access to the child. Similarly, the occurrence of pregnancy and birth can have an important influence on the course of male-female relationships. Research on these interrelationships is challenging. Not only do fertility and unions affect each other, but both reflect, in part, the personal characteristics of the individuals involved -- *e.g.*, religiosity, traditional value orientations, and socioeconomic status. We still have a very incomplete understanding of how personal characteristics, relationship dynamics, and fertility interact throughout the life course, and the gaps in our understanding are particularly wide for men.

Effect of relationships on fertility.

There is substantial evidence that nature of male-female relationships affects fertility and fertility-related behaviors, but most of the evidence has been accumulated through studies of women. Sexual relationships have both demographic and interactive dimensions. The key demographic parameters are legal status, coresidence (cohabiting versus visiting unions) and union duration. These, in turn, may be associated with interactive characteristics such as commitment, communication, emotional intimacy, power, and social embeddedness. Each of these dimensions can affect sexual behavior, contraception, abortion, pregnancy intentions, and birth:

- Sexual frequency is generally higher in coresident unions (it is highest, on average, among unmarried cohabiting couples), and among noncoresident unions, it is higher among those that are more committed (Sonenstein, Pleck and Ku, 1992; Thornton, 1990; Billy et al., 1993). Coercion leading to sexual intercourse is reported by many young women (e.g., Moore, 1989) and experienced by young men as well.

- Relationship commitment seems to have a positive effect on attitudes towards having a birth with that partner (e.g., Bachrach, 1987; Zabin, no date).

- Net of intentions, effective contraception is more likely in longer-term, more committed relationships (Brown and Eisenberg 1995, pp 174-176; Marsiglio, 1993). A large body of literature on use of condoms underscores the importance of communication and partner support as positive influences on use, but demonstrates a decline in condom use as emotional intimacy increases (Santelli et. al, 1996; Edwards, 1994; Ku, Sonenstein and Pleck, 1994).

- Evidence points to a higher likelihood of pregnancy and birth in more committed relationships. In first unions, rates of childbearing are higher for married than cohabiting couples (Loomis and Landale, 1994). Cohabiting women are more likely than other single women to become premaritally pregnant (Manning, 1992). Pregnancy rates for married women are higher than those for single women, but the differences in pregnancy rates are far smaller than those in birth rates, because pregnancies to unmarried women are five times as likely as those to married women to end in abortion (Ventura, et al., 1995). Even among unmarried women, those who become pregnant in less emotionally intimate relationships are more likely to choose abortion (Moore et al, 1995).

- We know very little about the relationship factors that influence paternity establishment once a nonmarital birth occurs.

The importance of understanding fertility in a relationship context is underscored by studies of decision-making about contraception and childbearing in married couples. While early studies suggested that wives' influence on couple decisions was greater than that of husbands, more recent analyses suggest a more equal influence (see Appendix F). Some studies suggest that when disagreement occurs between husbands and wives, it tends to discourage change in the couples' current contraceptive behaviors.

Attitudes about relationships and gender roles are also associated with fertility-related behaviors. The dominant model for adolescent male sexuality has been that of casual or recreational sex, which implies that sex is an end in itself regardless of the relationship context (Marsiglio, 1988). Some researchers report that by adolescence, both boys and girls endorse scripts for sexuality that go so far as the legal definition of rape. For example, fully 25 percent of middle school, high school and college students say it acceptable for a man to force sex on a woman if he spent money on her (National Research Council, 1990). However, there is evidence that as relationships develop young men may adopt "scripts" that are closer to those applied to marriage. Pleck and colleagues' (1993a) analyses of masculine ideology among U.S. adolescent males show diversity in the extent to which young men adhere to stereotypical views, but find strong associations between those views and sexual and contraceptive behaviors.

Effects of fertility on relationships

Just as relationships affect fertility, pregnancy and birth can prompt changes in relationships as well. Although the extent to which pregnancy leads to "shotgun marriage" has declined dramatically since the early 1960s, over one quarter of women experiencing a first premarital pregnancy during the late 1980s married before the birth of the child (Bachu, 1991). Research shows that the probability of marriage increases sharply in the short term in response to the occurrence of a pregnancy or birth (Bennett, Bloom and Miller 1995, Goldscheider and Waite 1986, Landale and Forste 1991). We know very little about the continuation of visiting unions after the birth of a child. In a study of adolescent women presenting for pregnancy tests (Toledo-Dreves et al, 1995), 63% of those who had carried their pregnancies to term were still in a relationship with the same partner two years later, compared with 34% of those who aborted the pregnancy. Pregnancy can also lead to conflicts and stress within the relationship, with increased risk of abusive behavior (Schechter and Ganley, 1995).

Research has shown that the presence of children deters union dissolution among married couples (e.g., Heaton, 1990; Waite and Lillard, 1991), and at least one study (Wu and Balakrishnan, 1995) has found this to be true for cohabiting couples. Recent research has suggested that the marriage-stabilizing effects of children may actually have been underestimated in previous research because it did not take into account the simultaneous influence of marital stability on willingness to have (more) children (Lillard and Waite, 1993).

Effects of prior unions and births on later family formation.

Increasing rates of cohabitation and divorce, and greater acceptance of nonmarital childbearing and childrearing mean that many if not most individuals will experience more than one union, and a substantial proportion of parents will have children with more than one partner. We are beginning to accumulate evidence that suggests that prior union and fertility experience influences the formation and stability of later unions and fertility within them. For example, Bennett and his colleagues (1995) demonstrate quite unequivocally that nonmarital childbearing reduces the likelihood that a woman will marry during her childbearing years, while Lillard and his colleagues (Lillard, Panis and Upchurch, 1994) demonstrate that children deter remarriage after divorce among white women. We know virtually nothing about these effects among men.

Further, unions formed by individuals who already have children appear to be less stable (Lillard and Waite, 1993), although existing research has not adequately distinguished unions involving both parents of a previous birth from those in which only one partner had a biological tie to the child. In the latter case, ongoing relationships with the nonresident father or mother may create conflict in the new union.

The evidence on whether births from prior unions influence fertility in later ones is mixed, but appears to suggest that husbands' fertility in prior marriages has a dampening effect on fertility in new unions (see Appendix F). We are only beginning to identify the basic demographic parameters of fertility in second marriages, have virtually no information on fertility in sequential cohabiting or visiting unions, and know extremely little about how relationships with and responsibilities toward prior-born children influence fertility in subsequent unions. What is needed here is not only the perspective of men, but also information about the marital and parenting experience of previous as well as current partners.

Gaps in research and data.

Major gaps exist in current research and data on the interrelationships of male fertility and union formation and dissolution. We know most about fertility in first marriages, less with respect to cohabiting relationships and higher-order marriages, and very little with respect to noncoresidential unions. Most of what we know, as noted earlier, we know from the female's point of view. Although it is clear that the relationship between fertility and union formation and dissolution varies substantially among different population groups (African American births, for example, are far more likely to occur outside of marriage than are births to white mothers), we still do not fully understand the forces that have shaped family-building patterns differently in different groups.

Recommendations. In addition to the recommendations provided previously for improving research and data on male fertility and on union formation and dissolution, we suggest that:

- New data are needed to provide a more comprehensive view of the intersection of fertility with relationships of all types. We need to improve information about the men who are responsible for pregnancies and births in all types of relationships, possibly through improved survey methods and/or improved uses of birth and administrative records.

- We need to collect information from both parties to the relationship, in order to understand gendered views of relationships, sex and contraception, and childbearing and in order to capture both parties' motivations and influence on decisions that affect the likelihood of pregnancy and birth. We need to pay particular attention to gendered power in relationships, including coercion or violence and links to gender-traditional views of men and women. In all types of unions, we need to know whether men's views of the tie between the union and children are different than those of women, how men's views of the costs and benefits of fatherhood depend on their relationship context, and whether variation in such views is associated with male fertility or union formation and dissolution. Since stepfamily experience is increasing, we need to know how men and women view the other partner's children in relation to their own childbearing desires and goals.

- Relationship data should be longitudinal, so that we can disentangle self-selection into relationships from relationship effects on childbearing. We need better "fathering histories" including both the history of biological parenthood and social fatherhood. When a union forms, we need to know about both partners' union and birth histories in order to understand the force of individual life-course continuities in comparison to the influence of partners' lives and actions. We need to study the impact of pregnancy and birth on the continuation and nature of relationships, a topic particularly understudied in nonmarital unions.

- Research and data are needed to better understand how and why patterns of fertility and family formation vary among groups that differ in socioeconomic status, nativity, race, and ethnicity. To answer these questions we will need both statistical data that represents minority populations as well as in-depth analytic studies using a mix of qualitative and quantitative methods to measure the effect of economic, social, cultural and institutional influences on family patterns.

- *The potential of new and emerging studies for answering these research questions should be thoroughly exploited through analyses of existing data. Several studies have collected pregnancy, birth and union histories in a fashion that allows relating one to the others, and some have collected partner-specific information on sexual and contraceptive behavior.* Information on partners collected by the National Survey of Family Growth, Cycle 5, the 1997 National Longitudinal Survey of Youth, and the 1995 National Survey of Adolescent Males is richer than that collected in previous rounds of the same surveys. A new study, the National Longitudinal Study of Adolescent Health (Add Health), collected substantial information about romantic relationships among adolescents, the peer, family, and community contexts in which these relationships were embedded, and information about sexual and contraceptive behavior within relationships. The National Survey of Families and Households collected complete union histories (resident unions only) for men and women, as well as information about dating and sexual experience of focal children.

- Existing data should be reinforced through the expansion of ongoing data collection efforts. Currently, no longitudinal data exist to study how relationships affect fertility among noncohabiting, unmarried men and women. Several studies could be modified to address this gap. For example, the NLSY 97 could be expanded to provide stronger information on nonco-resident relationships; the Add Health study could be continued to examine continuity and change in relationships and fertility behavior over the transition to adulthood.

- Efforts to strengthen quantitative data should be accompanied by further qualitative studies in a broad range of communities and populations. These studies should enhance our understanding of gendered scripts for relationships and fertility-related behaviors, and of how such scripts are formed and in turn influence union formation and dissolution, fertility, and parenting. They may also lay the foundation for better theory and measurement of relationships and their dimensions.

Health Education/Reproductive Health

Much of the interest in increasing male involvement in reproductive health is driven by the promise that such involvement leads to prevention of unintended pregnancy and healthier reproductive health outcomes for men and their partners. Indeed, some studies of sex education, counseling and health outreach services for men have found delays in the onset of sexual activity and improved contraceptive use (Kirby et al. 1994; Frost and Forrest, 1995; Danielson, 1990; Toroll and Larson, 1993; Ku, Sonenstein, and Pleck, 1992). Here we review what is known about males' receipt of reproductive information from schools and other sources and their utilization of reproductive health services.

Sex Education/Information.

Information about reproductive knowledge levels and the receipt of sex education by school age males are collected periodically by the Youth Risk Behavior Survey (YRBS). There are also other survey data that have measured sex education via the respondent's knowledge of pregnancy and STD prevention. The National Surveys of Adolescent Male (NSAM), the National Survey of Men (NSM), Add Health, and the National Health and Social Life Survey (NHSLS) are all prominent examples. In 1988, for example, over 90 percent of teenage males reported receiving some formal instruction on a reproductive topic. Seventy-nine percent were instructed about contraception, 73 percent received instruction about AIDS, and 58 percent were taught how to say no to sex (Ku, Sonenstein and Pleck, 1992). However there is a paucity of detailed information about the kinds of instruction that occur. This information is best provided by the instructors. Data from teachers or administrators on the extent of teaching of sexual education in the schools, and the content, by grade level was last collected in a national survey of teachers in 1987 (Forrest and Silverman, 1989). Given the rise in awareness about HIV and the changes in the sex education curriculums during this period, another study is due. Such a study could be expanded beyond health. For example, it would be useful to know the degree to which reproductive topics are integrated with broader themes about preparation for parenthood.

Beyond formal instruction there is also a wide array of other information sources related to reproductive health about which we know very little. Sexual health information from peers, parents, the schools, the media and other informational sources should be included in measures of how men learn to maintain their reproductive health across the life course. Some of these measures are available in the National Survey of Adolescent Males, but they are currently not collected by any institutionalized surveys. Furthermore, very little is known about the sources of information that adult males use to gain information about reproductive issues.

An abiding question in the prevention field is what kinds of programs reduce the risk of early sexual involvement, unintended pregnancy and STD transmission? Reviews of the evaluation literature have identified relatively few programs that have rigorously demonstrated improved outcomes for their participants (Kirby et al, 1994; Frost and Forrest, 1995; Moore et al, 1995). There is a need to identify promising program approaches and to conduct well designed evaluations of whether they produce changes in behavior. Recently there has been a flurry of interest in developing prevention programs targeted to males (Levine and Pitt, 1995; Sonenstein, Stewart, and Lindberg, 1996). There are a number of innovative programs around the country, but none have been rigorously evaluated.

Recommendations:

- Surveys of teenagers and adults should collect data about the sources of information that are used to gain knowledge about reproductive issues and to support the examination of the relative effectiveness of different information sources in increasing knowledge and influencing behavior.
- Trend information is needed about the types of instruction about reproductive issues that schools are providing. The survey of teachers last conducted in 1987 should be updated.
- Promising prevention programs need to be identified and to undergo rigorous evaluation. We know very little about what components of sex education and intervention programs actually lead to delays in sexual activity or improved use of contraception.

Reproductive Health Services.

Despite the long existence of male reproductive health services, a consensus on what constitutes these services has only recently started to emerge (Green, Cohen and Belhadj-El Ghouayel, 1995). In the United States, Title X guidelines that detail reproductive health services for women have been in existence for some time, but only in the last year has work begun to develop such guidelines for men under the auspices of AVSC. These services are likely to cover a wide array of services including contraception, vasectomy, STD prevention and treatment, infertility screening and treatment, impotence treatment, and testicular and prostate cancer screening.

Men use reproductive health services at a considerably lower rate than women. An important reason for this may be that medical methods for pregnancy prevention are almost exclusively designed for women. No fully reversible medical method exists for use by men in the U.S. However, research on the development of reversible hormonal methods which lower sperm counts and nonhormonal methods which plug the vas deferens has been proceeding in the U.S. and other parts of the world, and preliminary research suggests that men find these methods acceptable (Ringheim, 1995). Both biomedical and behavioral research is needed to continue the development of these methods and to maximize their acceptability and use.

No comprehensive source of information about the use of reproductive health services by men currently exists. Some information is provided, however, by administrative records and surveys.

(1) *Administrative Records.* There is a very limited amount of administrative data available about health behavior and men. Title X grantees are required by the Office of Population Affairs to submit annual service data tabulating the number of family planning visits. Three tables stratified by sex are available for 1995 visits, including tabulations of age by race, age by Hispanic/Latino origin and service delivered (STD tests excluding HIV and HIV tests). The data indicate that out of 4.5 million Title X visits in 1995, only 94 thousand or 2 percent are by men (Manzella and Frost, 1996).

(2) *Surveys.* Although a few national surveys provide some estimates of men's receipt of reproductive health services, their range of service coverage is quite limited and none are regularly scheduled to occur. Therefore trends in men's receipt of reproductive health services cannot be monitored. The 1995 NSAM follow up survey includes some measures of health services during the past year including physical exams, STD testing, counseling to prevent pregnancies and counseling to prevent STDs and AIDS. Because men's use of health services is low, limiting the time frame to 12 months will mask the number of men who have **ever** received medical services related to reproductive health. The NHSLS concentrates its questions in two topic areas: sexual dysfunction and STD incidence and treatment. The NSM collects information about STD screening and treatment. None of these surveys provide the range and depth of information about reproductive health services that are routinely collected in the National Survey of Family Growth for women. The NSFG questionnaire could serve as a useful model for beginning to design survey questions related to male reproductive health services. These questions would need to be modified to address services particular to males, and to monitor a wide array of health services ranging from school athletic physicals and general physicals to more direct reproductive health visits made by men or visits where men accompany their partner to a family planning, abortion, prenatal, delivery, or post-natal care visit. In addition to developing such service use modules for surveys of men, the NSFG could be expanded to include questions for women about whether their male partners accompanied them to reproductive health visits.

Recommendations:

- Surveys of men are needed to collect information about their receipt of a broad array of medical and health services and to assess their awareness, attitudes towards, use of, and experiences with male reproductive health services, alone or in the company of partners.

- Studies are needed of the determinants of males' use of reproductive health services, including provider characteristics and social or structural barriers that may deter use.

- Studies are needed of the problems presented to the public health system of presenting STD and pregnancy prevention options to men and couples at different points in the life cycle.

Indicators of Male Fertility and Family Formation

In the U.S. there are no institutionalized mechanisms for collecting data on male fertility or union formation. Yet, having indicator data reported about males to monitor trends would be useful for both policy and research purposes. As we have noted, the major shifts in family formation and fertility that have occurred in the U.S. are as much a result of males' behavior as they are of females' behavior. To interpret these trends by relying on periodic reports about the behavior and attitudes of females predisposes us to partial explanations. Yet this is exactly the nature of our current monitoring system.

It is useful to begin with a definition of what we mean by indicator data. An indicator is a measure of a behavior or attitude that traces the status or well-being of population groups over time, across groups, and/or across geographic areas. Indicators are descriptive and are not intended to be explanatory. Indicators of male fertility should meet several criteria (see Moore, 1995, for a discussion). They should:

- assess male fertility and union formation across a broad array of outcomes, behaviors and processes;

- provide wide coverage of the population or the event being monitored and data collection procedures should be rigorous and consistent over time;

- cover both teenage and adult males;

- have consistent meaning across socioeconomic and cultural subpopulations;

- be made available in a timely way, so that trend information is up-to-date and useful;

- anticipate future trends and social developments, and provide baseline data for subsequent trends;

- be geographically detailed, at the national, state and/or local levels;

- be comparable in meaning over time; and
- facilitate the tracking of progress in meeting societal goals regarding male fertility and family formation.

Figure 2 provides an illustrative set of high priority indicators; a more extensive set is included in Appendix 1. The indicators reflect a broad range of domains including relationship status (marriage and cohabitation), sexual behavior and contraceptive use, pregnancy and pregnancy resolution, births by marriage and cohabitation status of the parents, paternity establishment, divorce and other union dissolutions, reproductive health services, and fatherhood. The indicators include measures of both behaviors and attitudes related to male fertility and family formation. The connection between attitudes and behaviors is not clear-cut; nevertheless, there have been tremendous changes in attitudes about marriage, fertility and fatherhood (Thornton, 1995), which have tracked closely with behavior, making it advisable to gather information on males' attitudes and opinions. We note that while information about reproductive and union behavior may be targeted to males of particular ages, information about attitudes can be solicited from men of all ages. For example, attitudes about fatherhood could be directed to children and adolescents as well as adult men.

Recommendation: Establish a set of indicators to monitor key aspects of the fertility and union processes that influence fatherhood. The indicators should include both attitudes and behaviors and be drawn from a variety of relevant domains.

Data for indicators on sexual behavior and fertility often come from household surveys. Currently, most of the indicator data we have on fertility and family formation is provided by women informants; very little is obtained directly from men. However, there are exceptions. The General Social Survey (GSS) interviews adults, both men and women, on their attitudes towards abortion, cohabitation, and the ideal number of children. The GSS also contains questions on number of sex partners during various time periods, the gender of those partners and whether they were steady or non-steady partners. Both the National Survey of Families and Households (NSFH) and the National Longitudinal Survey of Youth (NLSY) include items such as the timing and number of births, whether births were unwanted or unintended, and data on marriage and cohabitation histories. The National Survey of Adolescent Males (NSAM) includes both general and partner-specific sexual and contraceptive histories, pregnancy histories and some information about fatherhood, as well as measures of attitudes towards contraceptive responsibility, sex, cohabitation, abortion, children and gender role identity for a sample of young males. Importantly, none of the above-mentioned surveys can be relied upon as continuing sources of indicator data. The GSS modules change over time; the NLSY is a longitudinal study not designed to monitor trends; and the NSFH and NSAM are special-purpose studies that may or may not be conducted again in the future.

Three surveys that are institutionalized as regular data collection activities of the federal government include the Youth Risk Behavior Survey, the National Survey of Family Growth, and the Current Population Survey. The YRBS includes a small number of sexual behavior indicators for in-school adolescents. The NSFG is a survey of women, although it can be used as a proxy source of information on male demographic characteristics and wantedness of pregnancies by males. The CPS collects information on the current marital status of men, but has only attempted to collect information on marital and fertility histories once, an attempt that was judged unsuccessful.

Administrative data represent another crucial source of indicator data. The vital statistics system collects data on births, marriages and divorces. However, even these data provide little information about men: currently, only aggregate counts are being produced from vital records on marriage and divorce, and reporting of father characteristics is incomplete on birth registration data, especially for births occurring to young unmarried women.

Other potential sources of administrative data include paternity establishment and child support enforcement records. These data could be more easily compared to birth data in the aggregate if the birth year of the child was entered into the paternity establishment/child support enforcement data. Current efforts to monitor trends in paternity establishment use the number of paternities established in a given year over the number of non-marital births in the previous year. Since paternity can be established for a child up to age 18, the current yardstick is a very rough measure of trends in this area.

Recommendation: Existing data collection efforts should be strengthened to provide valid and timely monitoring of key indicators of male fertility and family formation. This may include: continuing YRBS and NSFG, expanding NSFG to include sample of men asked to complete a interview, improving recording of information about fathers on birth certificates, collecting better information about fathers and children in paternity establishment records, collecting complete data from men on cohabiting and marital relationships and fertility on CPS, SIPP, or other household surveys. Promote the continuation of indicator data on GSS.

Theory and Methodology

Theoretical approaches.

In our review of research on male fertility and family formation, our working group identified a broad range of theoretical perspectives that have motivated and framed studies (see Appendix B). The choice-theoretic framework of neoclassical economics has been extensively used to study fertility and marriage behavior, and recently has provided the basis for a creative new model that purports to explain current patterns of nonmarital paternity among disadvantaged men. Like many economic studies, social-demographic studies of marriage have tended to rely on structural-functionalist models of role specialization within families, and the factors, such as women's economic independence and men's earning capacities, which have reduced the value of role specialization and therefore the incentives for marriage. These models underlie models of the "marriage market", which is traditionally seen as functioning in a way that maximizes role specialization.

Many social-psychological models of fertility behavior rely on decision frameworks in which the costs and benefits of potential behaviors are weighed, and intentions for behavior are formed. Social-psychological models of fertility motivation have similarly conceptualized motivation as a function of the perceived costs and benefits of having and rearing a child. Miller has suggested the biological factors and early experience may also have an important influence on the development of motivation (see Appendix D). Social capital theory has been used recently to elaborate on the value of the social ties that children generate for their parents. This perspective suggests why, despite the economic costs of children, men and women continue to want them. Other social psychological theories that are useful in understanding fathering, fertility, and unions include identity theory, theories of generativity, and social learning theory (see Appendix C).

Other research has drawn on conflict or bargaining theories in which sexuality and children are seen as resources that both men and women manipulate to pursue goals, subject to structural and cultural constraints. An example, provided by Eli Anderson's study of sexuality in an inner city community, portrays young men and women as using sexuality and parenthood to advance disparate goals for, on the one hand, status in the peer group, and on the other hand, the security of a committed relationship or the benefits of motherhood. Other important theories for understanding male-female interactions include scripting theory and theories of gender and gender display (see Appendix C).

Clearly, there is currently no unified and accepted theory that explains union and fertility behavior among men and women; rather there are many useful perspectives drawn from a variety of disciplines and research traditions.

Recommendations:

- The data we collect should permit the testing of a broad range of hypotheses drawn from relevant theoretical perspectives.
- Theoretical frameworks should incorporate the perspectives of both men and women, and take account of the dyadic nature of fertility and family formation.

- Theoretical advances need to address issues of gender explicitly. They need to address declines in gender-role specialization; gender differences in the value of children and marriage and in motivation to invest in child quality; the different, and potentially conflicting, motivations and constraints faced by men and women, including differences in economic and marriage market opportunities; changes in gender roles within and outside of unions, including subgroup variations in gender role attitudes and norms; and the relative influence of men and women in fertility decision-making, and factors associated with variation in each gender's relative influence. Theoretical models of union formation and fertility need to more explicitly address the separate, but intertwined, roles of men and women, and to explain less traditional family formation behaviors, such as non-marital childbearing and cohabitation.

Methodological issues.

The development of theory must be accompanied by methodological research to facilitate valid tests of hypotheses. The working group identified a wide range of methodological challenges, reflected in our recommendations below. We believe, however, that adequate methodologies are already within reach to pursue much of the research agenda we have outlined, and that research and data collection on most issues should proceed simultaneously with research to improve our tools for understanding male fertility and family formation.

Recommendations:

- Survey methods must be developed that facilitate the inclusion of "missing populations" in studies - incarcerated and homeless men, men loosely attached to households, men in the military, and, in studies that sample couples, partners who are loosely attached to relationships.

- Research must be done to identify and correct sources of bias in men's reports about their fertility and family formation experience.

- Development of measures is needed in several domains, including the study of nonmarital relationships, motivations for sexual, contraceptive, fertility, and union-related behaviors, and the meanings of and attitudes towards gender, unions, and parenthood across different population groups.

- Further development of statistical methods that permit analyses of dyadic decision-making and behavior while accounting for selection effects is needed.

Steps for the Future: Indicators, Data Collection and Research on Male Fertility and Family Formation

In their deliberations, working group members developed a large number of recommendations for improving data and research on male fertility and family formation. Many of these have been discussed above, and further recommendations are found in the appended working papers (Appendices B through H). In this section, we summarize our key recommendations for federal agencies concerned with research and data collection related to fatherhood. These include three areas of effort: *the development of indicators* to monitor change in male fertility and family formation; *the strengthening of surveys and institutionalization of data collection*; and *the mobilization of research* to improve our understanding of these processes and their impact on fathering.

Indicators.

A core set of indicators should be developed to monitor key aspects of the fertility and union processes that influence fatherhood. These would include measures of relationship status (marital and cohabitational), sexual behavior and contraceptive use, rates of marriage, divorce, male fertility within and outside of marriage, cohabitation, number of recent sexual partners, nature of current relationship, paternity establishment for nonmarital births, reproductive health services, and attitudes towards out of wedlock childbearing, marriage, cohabitation, and fatherhood. Specific measures to be included in the "core set" should be determined as a follow-on activity of the Fatherhood Initiative; choice of measures should be based on the criteria for indicators given in an earlier section of the paper and on considerations of data availability and quality. Consideration should be given to including this set of indicators in the statistics on child well-being compiled annually by ASPE, to including one or more key items in the "short list" of national "Indicators of Children's Well-Being", and, possibly, to developing goals for the Nation against which monitoring can occur.

Data Collection.

Data collection efforts should be strengthened, and, in some cases, institutionalized, to provide a reliable basis for producing indicators and to provide data for analytic studies. NCHS, in collaboration with the Census Bureau and other agencies, should take the lead in expanding or modifying current data collection systems to provide indicator data on a timely (approximately once every three years) and reliable basis. For example, NCHS should consider either adding appropriate items to the NHIS, adding a male component to the NSFG, and/or developing data based on the vital registration system, such as improved marriage and divorce data and relationship status information on birth certificates. The Office of Child Support Enforcement should improve the data it keeps about fathers and children in its program. The Census Bureau should develop ways to expand its collection of marital and fertility history data to include valid and representative data from men, and to include cohabitation. This could be done in connection with the CPS or SIPP, depending on projected sample sizes, coverage of men, and quality of data. The potential role of the American Community Survey should also be explored. CPS questions could be adapted to allow direct identification of cohabiting couples. GSS should be encouraged to continue monitoring attitudes. Unless specifically contraindicated, data collections should include both men and women, and methodological research should be undertaken to address issues of data quality and completeness.

There is also a need for new longitudinal data to provide the basis for analytic studies of the processes involved in male fertility, union formation and dissolution, and the interrelationships among fertility, unions, and parenting. These data should include both men and women (and possibly also couples), and should permit the testing of a broad range of hypotheses, including those concerning the effects of social and policy influences. Ideally, all types of unions should be studied, including "visiting" sexual relationships as well as cohabitation and marriage.

The most cost-effective options for developing these data include expansion of existing data collections that follow samples now approaching or in the early years of union formation and childbearing. Expansions could include single items, questionnaire modules, or design features such as add-on qualitative components. Several studies should be considered for expansion. NLSY 97 is just beginning, will and already will collect much of what is needed. NELS could also provide information although limited information on sexual behavior was collected for the teen years of this sample. The Add Health study has a rich baseline on the formation of romantic relationships and the characteristics of youth and their families; its sample could be followed through early adulthood. NLSY-Children, SIPP or PSID should also be considered. If it is not feasible to expand existing studies appropriately, or if expansions leave important analytic questions unanswered, a new study should be developed, probably under the auspices of NICHD.

Research.

Various agencies, including ASPE, OPA, NICHD, and ACF should promote and stimulate research on male fertility and union formation and dissolution. The research agenda encompasses both basic research and policy-oriented research, encourages studies of both men and women, encourages research that examines how these processes differ across and within racial, ethnic, and socioeconomic groups, and encourages studies that use a broad range of qualitative, quantitative, and mixed-method studies as scientifically appropriate. Existing and soon-to-be released survey data should be mined exhaustively. Developmental studies should be conducted to develop theory and measurement, and their lessons applied in the design of both large-scale and focused studies.

Major substantive areas include:

- Research on gender roles and attitudes, and the influence of gender on the processes of family formation and fertility. It is important to learn how gender-related attitudes, values and behaviors are formed and modified over the life course, and how they vary among different racial, ethnic, and socioeconomic groups. Studies of the links between gender-traditional views of men and women and views of coercion and violence in relationships, and fertility and union processes are also needed. It is also important to study how the meaning of and attitudes towards the processes involved in fertility, union formation and dissolution, and parenting differ between men and women, and vary depending on union and parental status. Research is needed to study how such attitudes interact with other factors in affecting fertility and relationship outcomes.

- Research on union formation and dissolution, including studies of the causal processes associated with the formation, maintenance, and dissolution of unions, and the meaning of different union types, and studies that explain and interpret historical changes in union formation and dissolution. Couple-based or dyadic studies that examine the relative roles of men and women in family decision-making are also needed.

- Research on the factors influencing male fertility and fertility-related behaviors, motivations, and attitudes, including those relating to sexual behavior, contraceptive use, pregnancy and pregnancy outcome, paternity establishment, and fathering; and including influences at the individual, family, peer, institutional and community levels.

- Research that examines the intersections of fertility-related behavior, childbearing, and childrearing with union formation and dissolution. Questions here include the influence of different types of unions on the risk of unintended pregnancy, the influence of pregnancy and birth on the marriage and cohabitation choices of an unmarried couple, the impact of parenting and the presence of children on union stability or decisions to remarry after divorce, and the influence of blended family situations on subsequent family transitions and fertility.

- Research on the intersections among fertility, union formation and fathering, including the effect of planned or unplanned fatherhood, paternity establishment, and transitions in union status on fathering, and the influence of changing meanings of fatherhood on fertility and family formation behaviors.

- Research on the nature, availability, use and effectiveness of reproductive health education and services that help to prevent unintended pregnancy and contribute to the health and well-being of men. Continued research is needed on the development and acceptability of reversible male methods of contraception.

References

Aldous, J. 1983. *"Problematic Elements in the Relationship Between Churches and Families."* In Families and Religions: Conflict and Change in Modern Society. Beverly Hills, CA: Sage. pp. 67-80.

Amato, P.R. and A. Booth. 1991. "The Consequences of Divorce for Attitudes Toward Divorce and Gender Roles." *Journal of Family Issues* 12(3):306-322.

Anderson, E. 1989. "Sex Codes and Family Life Among Poor Inner City Youths." *Annals of the American Academy of Political and Social Sciences* 501:59-78.

Axinn, W.G. and A. Thornton. 1996. "The Influence of Parents' Marital Dissolutions on Children's Attitudes Toward Family Formation." *Demography* 33(1):66-81.

Bachrach, C. 1987. "Cohabitation and Reproductive Behavior in the U.S." *Demography* 24(4): 623-637.

Beach, L.R., F. L. Campbell, and B.D. Townes. 1979. "Subjective Expected Utility and the Prediction of Birth-Planning Decisions." *Organizational Behavior and Human Performance* 24:18-28.

Beckman, L.J. 1984. "Husbands' and Wives' Relative Influence on Fertility and Outcomes." *Population and Environment*, 7(3): 182-197.

Bennett, Neil G., David E. Bloom, and Cynthia K. Miller. 1995. "The Influence of Nonmarital Childbearing on the Formation of First Marriages." *Demography* 32:47-62.

Billy, J.O.G., K. Brewster, and W.R. Grady. 1994 " Contextual Effects on Sexual Behavior of Adolescent Women." *Journal of Marriage and the Family* 56 (May): 387-404.

Billy, John O. G., Koray Tanfer, William R. Grady, and Daniel H. Klepinger. 1993. "The Sexual Behavior of Men in the United States" *Family Planning Perspectives* 25:52-60.

Blendon, R. J., J. M. Benson, and K. Donelan. 1993. "The Public and the Controversy Over Abortion." *Journal of the American Medical Association* 270: 2871-2875.

Blossfeld, H.-P. and J. Huinink. 1991. "Human Capital Investments or Norms of Role Transition? How Women's Schooling and Career Affect the Process of Family Formation." *American Journal of Sociology* 97:143-168.

Blumstein, P. and P. Schwartz. 1983. *American Couples*. New York: William Morrow.

Brown, Sara S., and Leon Eisenberg (eds.). 1995. *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families.* [Committee on Unintended Pregnancy, Institute of Medicine] Washington, D.C.: National Academy Press.

Bumpass, L.L. 1990. "What's Happening to the Family? Interactions Between Demographic and Institutional Change." *Demography* 27:483-98.

Bumpass, L.L., J.A. Sweet, and A. Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage." *Journal of Marriage and the Family* 53(4):913-927.

Catania, J. *et al.* 1992 "Prevalence of AIDS-Related Risk Factors and Condom Use in the United States." *Science*, 258.

Cherlin, A.J. 1992. *Marriage, Divorce, Remarriage.* Cambridge, MA: Harvard University Press.

Clarkberg, M., R.M. Stolzenberg and L.J. Waite. 1995. "Attitudes, Values and Entrance into Cohabitational versus Marital Unions." *Social Forces* 74(2):609-634.

Clarke, Sally C. 1995. "Advance Report of Final Marriage Statistics, 1989 and 1990." *Monthly Vital Statistics Report* 43(12 Supp). Hyattsville MD: National Center for Health Statistics.

Danielson, Ross et al. 1990. "Reproductive Health Counseling Services for Men: Is There a Need?" *Family Planning Perspectives*, 22:115-121.

Edwards, Sharon R. 1994. "The Role of Men in Contraceptive Decision-Making: Current Knowledge and Future Implications." *Family Planning Perspectives* 26(2): 77-82 (March/April).

Forrest, Jacqueline Darroch, and Jane Silverman. 1989. "What Public School Teachers Teach About Preventing Pregnancy, AIDS and Sexually Transmitted Diseases." *Family Planning Perspectives*, 21(2):65-72.

Fried, E. S., S. L. Hofferth, and J.R. Udry. 1980. "Parity-Specific and Two-Sex Utility Models of Reproductive Intentions." *Demography* 17(1): 1-11.

Frost, J.J. and J.D. Forrest 1995 "Understanding the Impact of Effective Pregnancy Prevention Programs." *Family Planning Perspectives* 27(5): 188-195.

Forste R., K. Tanfer and L. Tedrow 1995 "Sterilization Among Currently Married Men in the United States, 1991." *Family Planning Perspectives* 27(3): 100-122.

Furstenberg, F.F. Jr., C.W. Nord, J.L. Peterson, and N. Zill. 1983. "The Life Course of Children of Divorce: Marital Disruption and Parental Contact." *American Sociological Review* 48(10): 656-668.

Furstenberg, Frank F. 1995. "Fathering in the Inner City". Pp. 119-147 in William Marsiglio (ed.), *Fatherhood: Contemporary Theory, Research and Social Policy.* Thousand Oaks: Sage Publications.

Goldscheider, F.K. and L.J. Waite. 1986. "Sex Differences in the Entry into Marriage." *American Journal of Sociology* 92:91-109.

Grady, W. R., D.H. Klepinger, J. O. G. Billy and K. Tanfer. 1993. "Condom Characteristics: The Perceptions and Preferences of Men in the United States." *Family Planning Perspectives* 25: 67-73.

Green, Cynthia, P., Sylvia I. Cohen and Hedia Belhadj El Ghouayel. 1995. *Male Involvement in Reproductive Health, Including Family Planning and Sexual Health.* Technical Report 28. New York: United Nations Population Fund.

Heaton, Tim B. 1990. "Marital Stability Throughout the Child-Rearing Years." *Demography* 27:55-63.

Hoem, J.M. 1986. "The Impact of Education on Modern Family-Union Initiation." *European Journal of Population* 2:113-133.

Kirby, Douglas et al. 1994. "School-Based Programs to Reduce Sexual Risk Behaviors: A Review of Effectiveness," *Public Health Reports,* 109:339-360.

Klassen, A.D., C.J. Williams, and E.E. Levitt. 1989. *Sex and Morality in the U.S.* Middletown, CT: Wesleyan University Press.

Ku, Leighton, Freya Sonenstein and Joseph Pleck 1992. "The Association of AIDS Education and Sex Education with Sexual Behavior and Condom Use Among Teenage Men." *Family Planning Perspectives*, 24: 100-106.

Ku, Leighton, Freya Sonenstein, and Joseph H. Pleck. 1994. "The Dynamics of Young Men's Condom Use During and Across Relationships." *Family Planning Perspectives* 26(6): 246-251 (Nov/Dec).

Landale, N.S. and Forste, R. 1991. "Patterns of Entry into Cohabitation and Marriage among Mainland Puerto Rican Women." *Demography* 28:587-607.

Landry, (1995) focus groups.

Laumann, Edward, John H. Gagnon, Robert T. Michael, and Stuart Michaels. 1994. *The Social Organization of Sexuality.* Chicago, IL: University of Chicago Press.

Levine, James A. and Edward W. Pitt. 1995 *New Expectations: Community Strategies for Responsible Fatherhood*. New York: Families and Work Institute.

Lillard, Lee A., and Linda J. Waite. 1993. "A Joint Model of Marital Childbearing and Marital Disruption." *Demography* 30:653-681.

Lillard, Lee A., Constantijn W.A. Panis, and Dawn M. Upchurch. 1994. "Interdependencies Over the Life Course: Women's Fertility, Marital, and Educational Experiences." Working Paper 94-17, Labor and Population Program, The Rand Corporation, Santa Monica, CA.

Lillard, L.A., M.J. Brien and L.J. Waite. 1995. "Pre-Marital Cohabitation and Subsequent Marital Dissolution: Is It Self-Selection?" *Demography* 32(3):437-458.

Lichter, D.T., F.B. LeClere and D.K. McLaughlin. 1991. "Local Marriage Markets and the Marital Behavior of Black and White Women." *American Journal of Sociology* 96:843-867.

Loomis, Laura Spencer, and Nancy S. Landale. 1994. "Nonmarital Cohabitation and Childbearing Among Black and White American Women." *Journal of Marriage and the Family* 56:949-962

Lye, D.N. and I. Waldron. 1993. "Correlates of Attitudes Toward Cohabitation, Family and Gender Roles." Working Paper 93-10, Seattle Population Research Center, University of Washington.

Manning, Wendy D. 1992. "The Linkage between Premarital Fertility and Cohabitation in the U.S." National Survey of Families and Households Working Paper 52, Center for Demography and Ecology, University of Wisconsin-Madison, Madison WI.

Manzella, Kathleen and Jennifer Frost, 1996. *"Family Planning Annual Report: 1995 Summary, Part 2, Detailed Tables and Data Forms,"* Report submitted to The Office of Population Affairs, U.S. Department of Health and Human Services, New York: The Alan Guttmacher Institute.

Marsiglio, W., and E.G. Menaghan. 1987. "Couples and the Male Birth Control Pill: A Future Alternative in Contraceptive Selection." *The Journal of Sex Research*, 23(1): 34-49.

Marsiglio, William. 1988. "Adolescent Male Sexuality and Heterosexual Masculinity". *Journal of Adolescent Research* 3 (3-4):285-303.

Marsiglio, William, 1993. "Adolescent Males' Orientation Toward Paternity and Contraception." *Family Planning Perspectives* 25(1):22-31

Marsiglio, W., 1995 "Stepfathers with Minor Children Living at Home." in W. Marsiglio (ed) *Fatherhood: Contemporary Theory, Research and Social Policy*. Thousand Oaks, California: Sage, 211-229.

Marsiglio, William, 1998. *Procreative Man*. New York: New York University Press.

Martin, T.C and L.L. Bumpass. 1989. "Recent Trends in Marital Disruption." *Demography* 26:37-51.

Miller, Warren. 1986. "Proception: An Important Fertility Behavior." *Demography* 23(4):579-594.

Miller, Warren. 1995. "Childbearing Motivation and Its Measurement." *Journal of Biosocial Science* 27:473-487.

Miller, Warren and David J. Pasta. 1996. "Behavioral Intentions: Which Ones Predict Fertility Behavior in Married Couples?" *Journal of Applied Social Psychology* 25(6):530-555.

Miller, B.C., J.K. McCoy and T.D. Olson. 1986. Dating Age and Stage as Correlates of Adolescent Sexual Attitudes and Behavior. *Journal of Adolescent Research* 1:361-371.

Miller, B.C., R. Higginson, J.K. McCoy, and T.D. Olson. 1987. "Family Configuration and Adolescent Sexual Attitudes and Behavior." *Population and Environment* 9(2):111-123.

Miller, Warren B., Rochelle N. Shain, and David J. Pasta. 1991. "Tubal Sterilization or Vasectomy: How Do Married Couples Make the Choice?" *Fertility and Sterility* 56:278-284.

Mincy, Ronald. (1995) "Reforming Income Maintenance and Family Support Systems to Strengthen Fragile Families." Statement made before U.S. Commission on Child and Family Welfare.

Moore K. A., B. C.Miller, D. Glei and D.R. Morrison. 1995. *Adolescent Sex, Contraception and Childbearing: A Review of Recent Research.* Washington, D.C.: Child Trends, Inc.

Moore, K.A., J.L. Peterson, and F.F. Furstenberg. 1986. "Parental Attitudes and Early Sexual Activity." *Journal of Marriage and the Family* 48:777-782.

Moore, Kristin A. et al. 1989. "Nonvoluntary Sexual Activity Among Adolescents." *Family Planning Perspectives* 21.

Moore, K.A. and T.M. Stief. 1991. "Changes in Marriage and Fertility Behavior." *Youth and Society* 22(3):362-386.

Moore, Kristin A., Barbara W. Sugland, Connie Blumenthal, Dana Glei, and Nancy Snyder 1995 Adolescent Pregnancy Prevention Programs: Interventions and Evaluations. Washington, DC: Child Trends Incorporated.

Mosher, W.D., and W.F. Pratt 1990. "Use of Contraception and Family Planning Services in the United States, 1988." *American Journal of Public Health*, 80(9).

Mott, F.L. 1993. *Absent Fathers and Child Development: Emotional and Cognitive Effects at Ages Five to Nine.* Report prepared for the National Institute of Child Health and Human Development. Columbus: Ohio State University, Center for Human Resource Research.

National Research Council. 1996. *Understanding Violence Against Women.* Crowell, N. A. and A. W. Burgess (eds.). Washington, D.C.: National Academy Press.

Oppenheimer, V.K. 1994. "Women's Rising Employment and the Future of the Family in Industrialized Societies." *Population and Development Review* 20:293-342.

Oppenheimer, V.K. and V. Lew. 1995. "Marriage Formation in the Eighties: How Important Was Women's Economic Independence?" In Karen O. Mason and An-Magritt Jensen (eds.) *Gender and Family Change in Industrialized Countries.* Oxford: Clarendon Press, pp. 105-138.

Oppenheimer, V.K., M. Kalmijn and N. Lim. 1996. "Men's Career Development and Marriage Timing During a Period of Rising Inequality." Paper presented at the 1996 Annual Meetings of the Population Association of America, New Orleans.

Pleck, Joseph H., Freya L. Sonenstein, and Leighton Ku. 1993a. "Masculinity Ideology: Its Impact on Adolescent Heterosexual Relationships." *Journal of Social Issues* 49(3): 11-30.

Pleck, Joseph H., Freya L. Sonenstein, and Leighton Ku, 1993b. "Changes in Adolescent Males' Use of and Attitudes Toward Condoms, 1988-1991." *Family Planning Perspectives* 25: 106-110.

Ringheim, Karin. 1995. "Evidence for the Acceptability of an Injectable Hormonal Method for Men." *Family Planning Perspectives* 27: 123-128.

Santelli, John S., Anthony C. Kouzis, Donald R. Hoover, Michele Polascsek, LaWanda G. Burwell and David D. Celantano. 1996. "Stage of Behavior Change for Condom Use: The Influence of Partner Type, Relationship and Pregnancy Factors." *Family Planning Perspectives* 28(3):101-107.

Schechter, S. And Ganley, A. 1995. *Domestic Violence: a National Curriculum for Family Preservation Practitioners.* San Fransicso: Family Vilence Prevention Fund.

Seltzer, J.A., and Y. Brandreth. 1994. "What Fathers Say About Involvement with Their Children After Separation." *Journal of Marriage and the Family* 50 :663-677.

Sheehan, M.K., S.K. Ostwald, and J. Rothenberger 1986. "Perceptions of Sexual Responsibility: Do Young Men and Women Agree?" *Pediatric Nursing*, 12(1): 17-21.

Sonenstein, F.L., J.H. Pleck, and L.C. Ku 1989. "Sexual Activity, Condom Use and AIDS Awareness Among Adolescent Males." *Family Planning Perspectives*, 21: 152-158.

Sonenstein, Freya, Joseph H. Pleck and Leighton Ku. 1992. "Cost and Opportunity Factors Associated with Pregnancy Risk Among Adolescent Males." Presented at the annual meeting of the Population Association of America

Sonenstein F.L., K. Stewart and L.Duberstein Lindberg. 1996. "Male Involvement in Adolescent Pregnancy Prevention." Paper presented at the American Public Health Association Meeting, New York, November 20.

Stack, C.B. 1974. *All Our Kin: Strategies for Survival in a Black Community.* New York: Harper and Row.

Stolzenberg, R.M., M. Blair-Loy and L.J. Waite. 1995. "Religious Participation Over the Life Course: Age and Family Life Cycle Effects on Church Membership." *American Sociological Review* 60:84-103.

Sugland, B.W., K. Wilder and A. Chandra. 1996. "Sex, Pregnancy and Contraception: A Report of Focus Group Discussions with Male and Female Adolescents." Washington, D.C.: Child Trends, Inc.

Sullivan, M.L. 1993. "Young Fathers and Parenting in Two Inner-City Neighborhoods." In R. Lerman and T. Ooms (eds.) *Young Unwed Fathers: Changing Roles and Emerging Policies.* Philadelphia: Temple University Press, pp. 52-73.

Sweet, J.A. and L.L. Bumpass. 1990. "Religious Differentials in Marriage Behavior and Attitudes." NSFH Working Paper 15, Center for Demography and Ecology, University of Wisconsin-Madison.

Tanfer, K., W.R. Grady, D.H. Klepinger, and J.O.G. Billy 1993. "Condom Use Among U.S. Men, 1991. *Family Planning Perspectives*, 25: 61-66.

Teachman, J.D., K.A. Polonko and G.K. Leigh. 1987. "Marital Timing: Race and Sex Comparisons." *Social Forces* 66:239-268.

Terefe, Almaz and Charles P. Larson. 1993. "Modern Contraceptive Use in Ethiopia: Does Involving Husbands Make a Difference?" *American Journal of Public Health,* 83(11):1567-1576.

Thornton, A. 1989. "Changing Attitudes toward Family Issues in the United States." *Journal of Marriage and the Family* 51(4):873-893.

Thornton, A. and D. Camburn. 1989. "Religious Participation and Adolescent Sexual Behavior and Attitudes." *Journal of Marriage and the Family* 51(3):641-653.

Thornton, A. 1990. "The Courtship Process and Adolescent Sexuality." *Journal of Family Issues* 11(3):239-273.

Thornton, A. 1992. "The Influence of the Parental Family on the Attitudes and Behavior of Children." In S.J. South and S.E. Tolnay (eds) *The Changing American Family--Sociological and Demographic Perspectives.* Boulder, CO: Westview Press, pp. 247-266.

Thornton, A., W.G. Axinn, and D.H. Hill. 1992. "Reciprocal Effects of Religiosity, Cohabitation, and Marriage." *American Journal of Sociology* 98(3):628-651.

Thornton, A. 1994. "Comparative and Historical Perspectives on Marriage, Divorce, and Family Life." *Utah Law Review* 1994(2):587-604.

Thornton, A. 1995. "Attitudes, Values, and Norms Related to Nonmarital Fertility." *Report to Congress on Out-of-Wedlock Childbearing*, DHHS Pub. No. (PHS)95-1257. Washington, D.C.: U.S. Government Printing Office, pp. 201-215.

Thornton, A., W.G. Axinn and J.D. Teachman. 1995. "The Influence of School Enrollment and Accumulation on Cohabitation and Marriage in Early Adulthood." *American Sociological Review* 60: 762-774.

Toledo-Dreves, Virginia, Laurie S. Zabin and Mark R. Emerson. 1995. "Durations of Adolescent Sexual Relationships Before and After Conception". *Journal of Adolescent Health* 17:163-172.

U.S. Bureau of the Census. 1992. *Households, Families and Children: A 30-Year Perspective.* Current Population Reports, P23-181. Washington, D.C.: U.S. Government Printing Office.

Ventura, S.J., C.A. Bachrach, L. Hill, K. Kaye, P. Holcomb and E. Koff. 1995. "The Demography of Out-of-Wedlock Childbearing." *Report to Congress on Out-of-Wedlock Childbearing*, DHHS Pub. No. (PHS) 95-1257. Washington, D.C.: U.S. Government Printing Office, pp. 3-133.

Ventura, S.J., J. A. Martin, T. J. Matthews, and S. C. Clarke. 1996. "Advance Report of Final Natality Statistics, 1994." *Monthly Vital Statistics Report* 44(11) Supp. Hyattsville, MD: National Center for Health Statistics.

Waite, Linda. 1995. "Does Marriage Matter?" *Demography* 32(4): 483-507.

Waite, Linda J., and Lee A. Lillard. 1991. "Children and Marital Disruption." *American Journal of Sociology* 96:930-953.

Weitzman, L. 1985. *The Divorce Revolution: The Unexpected Social and Economic Consequences for Women and Children in America*. New York: Free Press.

Welsh, Carol. 1995. *Arkansas Prenatal and Postnatal Paternity Project: Fourth Quarter FFY95 Evaluation Progress Report*. October.

Wu, Zheng. 1995. "The Stability of Cohabitation Relationships: The Role of Children." *Journal of Marriage and the Family* 57:231-236.

Wu, Z. and T.R. Balakrishnan. 1995. "Dissolution of Premarital Cohabitation in Canada." *Demography* 32(4):521-532.

Wu, Lawrence L. 1996. "Effects of Family Structure and Income on Risks of Premarital Birth." *American Sociological Review* 61(3): 386-406.

Zabin, Laurie S. No date. "Partner Effects on the Desire to Conceive". Department of Population Dynamics, Johns Hopkins School of Hygiene and Public Health, unpublished manuscript.

Zelnik, M., J.F. Kantner, and K. Ford (1981). *Sex and Pregnancy in Adolescence*. Beverly Hills: Sage Publications.

Figure 1
Pathways to Social Fatherhood

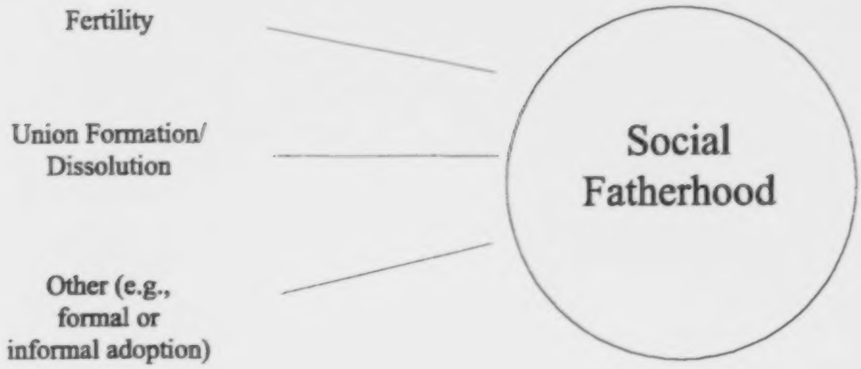

Fertility
Union Formation/ Dissolution
Other (e.g., formal or informal adoption)
Social Fatherhood

Figure 2
Illustrative High Priority Indicators of:
Male Fertility and Family Formation Behavior and Attitudes

Behaviors	Attitudes
Sexual Behavior age at first intercourse number of partners in past year number of lifetime partners victim/perpetrator of forced sex	**Sexual Attitudes** when sex is acceptable or allowable allowable levels of persuasion/coercion
Contraception contraception used at first sex for teens - by male - by female contraception used at last sex - by male - by female receipt of reproductive health care	**Contraceptive Attitudes** male methods male's responsibility for preventing pregancy vasectomy
Pregnancy & Pregnancy Resolution number of pregancies timing of pregnancies resolution of each pregnancy birth rate for men legal paternity acknowledgement for nonmarital births	**Pregnancy & Pregnancy Resolution** attitudes about impregnation attitudes about abortion pregnancy intendedness circumstances under which pregnancy is desirable
Marriage, Cohabitation & Non-cohabiting Sexual Relationships number of marriages current marital status age at first marriage current marriage followed conception current marriage followed birth currently cohabiting	**Marriage, Cohabitation & Non-cohabiting Sexual Relationships** best age to marry acceptable circumstances to marry ideal circumstances to marry acceptable circumstances to cohabit

Behaviors	Attitudes
Fatherhood	**Fatherhood Attitudes** best age to become a father importance of becoming a parent value of children attitudes about nonmarital childbearing father's responsibility mother's responsibility child support

Chapter 4:

Social Fatherhood and Paternal Involvement: Conceptual, Data, and Policymaking Issues

Chapter 4: Report of the Working Group on Conceptualizing Male Parenting

Randal D. Day, Ph.D. (Co-chair)
V. Jeffery Evans, Ph., D., LLD (Co-chair)
Michael Lamb, Ph.D. (Co-chair)

Primary Writing and Editing
William Marsiglio
Randal Day

Contributing Authors
Sanford Braver,
V. Jeffery Evans,
Michael Lamb,
Elizabeth Peters,

Introduction

As one of several working groups charged with the ultimate task of promoting research on fathers, we recognize that scholarly and social policy initiatives are linked to decisions about how fatherhood is defined. Our conceptual treatment of fatherhood focuses on both the social and legal definition of "father," (Marsiglio, forthcoming) and the cognitive, affective, and behavioral aspects of male parenting as an ongoing interpersonal process (Palkovitz, 1997). Addressing these complex and interrelated conceptual issues is essential if researchers and policymakers are to improve the quality of data and research on fathers (Fox and Bruce, 1996). Simply put, the research community must attend to these issues if we are to develop a better understanding of fathers' involvement[1] with, and influence on, their children.[2]

Fatherhood, and its many aspects, can be conceptualized in diverse ways. Numerous questions frame the sometimes controversial and often perplexing issues that need to be explored in this regard. Some of these include the following:

1. How should fatherhood be defined? What is the basis for advocating one definition over another? In short, who are fathers?
2. What dimensions or domains define the core and ancillary aspects to men's roles as fathers?
3. How can fathers demonstrate their commitment to their children and their involvement in their lives?
4. How do fathers' varied forms of involvement relate to children's well-being?
5. What does it mean to be a "responsible" father?
6. How do family processes influence fathers' opportunities to enhance their children's well-being?
7. What are the research and policymaking implications associated with the competing ways of conceptualizing these phenomena?
8. How do ideological issues shape the marketplace of ideas about fathers?[3]

Defining fatherhood in the United States is a difficult task, in part, because many factors shape the way fathers are perceived and behave. These difficulties are accentuated by the varied disciplinary and theoretical perspectives that are brought to bear on this task. We attempt to capture some of this complexity in our interdisciplinary report. In addition, we show how four general interrelated themes or foci enrich our definition of social fatherhood and paternal involvement. These themes include: a) family structure, b) cultural diversity, c) the notion that aspects of parenting are fundamentally shaped by dynamic and gendered social roles, and d) the idea that developmental trajectories, expressed at various points throughout the life course, influence fathers' involvement with their children.

Framework

In this interdisciplinary report, we address the compelling questions noted above and propose a framework for conceptualizing "social fatherhood" that focuses on key aspects of male parenting. We use the term "social fatherhood" throughout this report to underscore the wide net we cast when we address fatherhood issues. Thus, we are not merely interested in men who are biological progenitors, although they clearly represent the most important group of men we consider (we exclude men who are anonymous sperm donors). For our purposes, being a social father includes many dimensions. It includes, for example, the range of activities outlined by Palkovitz (1997) that expand upon earlier conceptualizations of paternal involvement (Lamb, Pleck, Charnov, and Levine, 1987). This more comprehensive vision of paternal involvement is consistent with our objective of developing a framework that captures the diverse ways fathers help to raise their children and influence their well-being. We underscore the notion that fathers' contributions often go beyond their hands-on care of children. As such, we take into account the resources fathers can provide for their children including human capital (e.g., skills, knowledge, and traits that foster achievement in U.S. society), financial capital (e.g., money, goods, and experiences purchased with income), and social capital (e.g., family and community relations that benefit children's cognitive and social development) (Amato, 1998; see also Coleman, 1988, 1990; Hagan, MacMillan, and Wheaton, 1996). Of these resources, we focus primarily on aspects of fathers' economic provider roles and their contribution of social capital as expressed through coparental and father-child relationships.

Four interrelated issues. We present our framework as the basis for collecting more meaningful data on fathers in order to generate theoretically informed research and policymaking agendas that address issues associated with fathers' involvement with their children and their contributions to their well-being. As such, we take a practical approach to conceptualizing and reviewing literature that addresses four interrelated issues associated with social fatherhood and paternal involvement (including the various forms of capital described above). First, we discuss issues associated with the conceptualization and assessment of *fathers' involvement*. We highlight the range of activities and dimensions related to fathers' roles, with particular attention to the way fathers spend time with their children and fathers' economic provider roles. Second, we examine some of the factors that underlie men's personal *motivation* to express themselves as social and "responsible" fathers. Third, we emphasize how paternal involvement is often shaped by the complex web of relationships between fathers, their children, and children's mothers. We use the shorthand phrase "*family process*" to refer to this set of relationships and the interpersonal exchanges they entail. Within this domain, social capital associated with a healthy coparental relationship provides children with the opportunity to model dyadic skills such as providing emotional support, establishing open communication, and implementing effective conflict resolution strategies. It also exposes them to a united authority structure (Amato, 1998). Fourth, we highlight some of the key *social policy* issues germane to fathers. This discussion considers the structural barriers/facilitators that either constrain or enhance a fathers' ability to assume active and responsible roles in their children's lives, and, in some ways, is linked to our comments about paternal involvement, motivation, and family process issues.

Based on previous reviews of the literature, we assume that a fathers' positive involvement and resource provision can enhance children's well-being (Lamb, 1997; Amato, 1998). Consequently, we assume that a fathers' negative involvement and inability or unwillingness to provide certain types of resources to their children can hinder children's healthy development. Our discussion of social fatherhood and paternal involvement emphasizes the positive ways fathers can influence their children's lives, though our discussion clearly has implications for the adverse effects that children may experience when their fathers exploit, neglect, or are unsuccessful in contributing to their children's development.

Definitional Issues and Rationales

Researchers, policymakers, and the general public continue to grapple with the definition of "father." Not surprisingly, this question is addressed from a wide range of disciplinary and ideological perspectives (Marsiglio, 1995a, forthcoming; Blankenhorn, 1995; Gershenson, 1983; Popenoe, 1996). Consequently, much of the debate hinges on the legal/policy, genetic, and social distinctions interested observers and stakeholders emphasize. These distinctions are justified in terms of moral, pragmatic, and theoretical rationales. The most typical response points to biological paternity as the defining characteristic of fatherhood, but this approach has increasingly been challenged by scholars and the general public alike for being overly restrictive, and in some cases too simplistic.[4] For many, the more intuitively appealing answer is: It depends. A man may be a father in the eyes of geneticists and the law but not in those of a child; or the reverse may be true. The distinction between the genetic father and the social father has been reinforced because high rates of both out-of-wedlock childbearing and divorce involving children have led to more men assuming father-like roles with children who were not their biological offspring (Da Vanzo and Rathman, 1993). The increasingly large percentage of men who have voluntarily or reluctantly disengaged themselves from their nonresident children's lives also contributes to this pattern (Furstenberg, 1988; 1995). Likewise, the emerging appreciation for the cultural diversity in familial arrangements highlights nontraditional definitions of fatherhood (Gershenson, 1983). These ongoing debates about the definition of fatherhood have grown even more complicated with the advent of asexual reproductive technologies which have muddled traditional notions of paternity and fatherhood roles (Marsiglio, forthcoming).

A man may be genetically related to a child but have no social or legal ties to his genetic offspring, or a man may have no genetic bond with a child but be perceived by individuals and the legal system to have social, and in some cases legal ties to the child. This latter scenario includes many of the millions of men who assume formal or informal step and adoptive father roles. In sum, the definition of fatherhood varies according to the personal and cultural reference points being used.

Obviously, then, the definition of fatherhood is shaped simultaneously by scholarly, political, and cultural forces. Thus, sober discussions about the nuances of fatherhood definitions are essential if we are to develop better research designs and social policies targeted at fathers.

We propose a broad conceptual framework that goes beyond defining fatherhood a priori along biological lines. Instead, we focus on the more general concept of social fatherhood. In many respects biological fathers will remain at the forefront of research and policymaking efforts, but these efforts should not thwart attempts to study and support forms of male parenting that involve men who are not genetically related to "their" children. A more inclusive approach such as ours provides researchers and policymakers with greater latitude in understanding the full range of issues involving men's negotiation and expression of fathering roles (Fox and Bruce, 1996). It also provides scholars with a clear incentive to explore the symbolic and practical significance of biological paternity versus men's purely social ties to children, as well as the legal implications associated with these distinctions.

Social father. As such, we justify focusing on social fatherhood by pointing to both theoretical and pragmatic rationales. From a theoretical point of view, much can be gained by studying the dynamic processes that shape individuals' (e.g., fathers, mothers, children) perceptions about how their sense of fatherhood personally affects them.[5] Biological paternity is clearly not always perceived as the only defining characteristic of who fathers are in contemporary society (Furstenberg, 1995; Gershenson, 1983; Marsiglio, forthcoming). In some cases it may be completely irrelevant (e.g., sperm donors). Furthermore, there are consequences associated with how people define a situation -- whether that definition is consistent or not with commonly recognized objective criteria (e.g., blood or legal ties). Put differently, if individuals define situations as real, they are likely to have discernable consequences for fathers, mothers, and children. Our conceptualization of fatherhood, by emphasizing the social dimensions to fatherhood, takes these issues into account.

We also emphasize the need to view men holistically as procreative beings (Marsiglio, forthcoming). We stress the importance of recognizing the continuity of men's roles beginning with their procreative decision-making choices prior to conception, moving on to the pregnancy process itself,[6] and culminating in fathers' involvement with their children. Unfortunately, little research has explored prospective fathers' feelings and behaviors prior to the birth of their children (May, 1980; May and Perrin, 1985).[7] Because of the limited scholarship in this area and the mission of our working group, we primarily focus on issues directly related to fathers' involvement with their children. Nonetheless, men's pre-birth experiences need to be addressed more systematically by future researchers because some men have the opportunity to affect child outcomes during this period as well as develop their sense of commitment to particular father roles.

Generative fathering. From a practical point of view, our conceptualization is appealing because it encourages policies that reward men's positive and active participation in children's lives. Our approach is consistent with a growing scholarly movement to define fathering in terms of proactive behavior rather than from a `deficit model' (Hawkins and Dollahite, 1997; Palkovitz, 1997; Snarey, 1993). From this *generative fathering* perspective, researchers can avoid the temptation of looking at father influence as a phenomena characterized by a father's absence. The concept of generativity views fathering as a complex and emergent process that accentuates men's personal growth vis-a-vis the child's well-being. Understanding the reciprocal nature of interaction between parent and child is the key; as both extend and invest in the relationship, both are enriched. The deficit model suggests, on the other hand, that only the child suffers when fathers are absent and that this absence is rather bi-modal (ie., the father is either there or not).

Responsible fathering. Our general definition of "responsible" fatherhood, which is closely linked to generative fathering, acknowledges the need to discuss motivational factors associated with men's desire to be "responsible" fathers as well as their actual paternal involvement. Our conceptualization is therefore consistent with Levine and Pitt's (1995, p. 5-6) description of a "responsible man" as someone who does the following:

1. He waits to make a baby until he is prepared emotionally and financially to support his child.

2. He establishes his legal paternity if and when he does make a baby.

3. He actively shares with the child's mother in the continuing emotional and physical care of their child, from pregnancy onwards [or is willing to assume these responsibilities on his own if the mother does not wish to be involved].

4. He shares with the child's mother in the continuing financial support of their child, from pregnancy onwards [or is willing to assume these responsibilities on his own if the mother does not wish to be involved].

Our General Thematic Framework

Fathers' attitudes and actions are affected by many factors including their immediate social surroundings. In this regard, family structure variables and residential arrangements are quite important. The growing diversity of life course and residency patterns for men and children have fostered new perceptions about fathers' roles (Gerson, 1993; Griswold, 1993; Marsiglio, 1995b). One consequence of these patterns is that, compared to a few decades ago, a decreasing proportion of all children today live in households with their biological fathers, and in no time in U.S. history have so many children had biological fathers living elsewhere (Bianchi, 1995; Mintz, 1998). Moreover, many children have stepfather figures living with them on a regular or irregular basis, and growing numbers of men are assuming the role of custodial single father (Brown, 1996; Eggebeen, Snyder, and Manning, 1996; Larson, 1992; Marsiglio, 1995c). These patterns translate into expanding images of who fathers are and what they do.

Family structure. These socio-demographic patterns complicate researchers' efforts to understand divorced fathers' commitment to and involvement with their nonresident biological children. Researchers may need to consider whether stepfather figures alter biological fathers' relationships with these children. Similarly, social fatherhood issues are relevant to never married fathers' relationships with their young, nonresident biological children if former partners mediate their chances for being involved in their children's lives.

Diversity. Our approach highlights how sub-cultural diversity issues are relevant to both definitions of fatherhood and men's experiences with expressing themselves as fathers. We briefly discuss the interrelated factors associated with race and social class. Many of the insights we have gleaned from the research in this area remind us that father roles are quite diverse within the U.S., and that they frequently involve negotiated arrangements between various family members, and in some cases other individuals or groups. This research also highlights how these negotiations occur within a larger ecological context that is fundamentally shaped by economic and culturally based factors (Burton and Synder, 1996, Daly, 1995; Furstenberg, 1995; Sullivan, 1989).

Gender. Gender issues significantly affect the way many men experience their everyday lives as procreative beings (Marsiglio, forthcoming) and fathers (Coltrane, 1996). These issues influence how men think about the prospects of paternity and fatherhood, how men view themselves as fathers, the way men are viewed and treated as fathers, and how fathers perceive their children and are involved in and/or affect their lives. As a fundamental organizing principle of social life, gender influences fathers' lives in numerous ways. For example, it is implicated in the way institutional arrangements are structured (e.g., labor markets, corporate culture, judicial system). In addition, when gender is viewed as a performed activity that is constructed in specific interaction settings

(West and Zimmerman, 1987; Thompson, 1993), it provides individuals with opportunities to display and interpret symbolic images of masculinity and femininity that are closely tied to value laden meanings associated with the economic provider and caretaker roles. Moreover, the process of "doing gender" underlies patterns of interpersonal communication (e.g., negotiations about child care). In short, many men and women experience tremendous anxiety and conflict sharing parental responsibilities, due in part to their gendered expectations and competing perceptions of family life (Fox and Bruce, 1996, see also Hawkins, Christiansen, Sargent, and Hill, 1993).

From a macro perspective, conservative and liberal social commentators have each lamented cultural changes in how adulthood masculinity is defined (Blankenhorn, 1995; Ehrenheich, 1983). The basic thrust of these arguments is that cultural and social changes have weakened the connection between masculinity norms and expectations about being a good "family man." Accordingly, adult men have in recent years been able to pursue their individual interests more easily as single men without jeopardizing their sense of masculinity.[8] In other words, they are able to sustain their masculine sense of self without being a married family man. Some observers believe that men's expanded options for achieving adulthood masculinity have led to negative outcomes for many women and children (Blankenhorn, 1995; Popenoe, 1996).

The gender theme is also intimately related to cultural diversity issues. Masculinity norms and images, and the way these cultural elements are associated with marriage and family life, may differ between men from different racial, social class, and religious backgrounds. Determining how men in different types of settings are able to express their manhood, and the importance they place on doing so, is an important aspect to understanding fathers' level and type of commitment to and involvement with their children.

Developmental/life course trajectories. It is generally assumed (Klein and White, 1997) that developmental/life course trajectories are inevitable. As time passes, the complexities of family structure, issues in gender, and larger community/cultural norms about behavior merge together to describe a person's and/or family's journey as their roles and responsibilities change over time. The essence of this perspective is that life is not static nor is it defined by simplistic role definitions that can only capture a father's (for example) involvement level at one time point, when he and his spouse/partner are at certain ages and the children are at a particular stage of life. Further, this perspective also encourages us to examine a family life form using multiple levels of analysis. That is, we need to recognize that families are a type of social group but that within that group are potential dyadic interactions, and further, the dyads are made up of individuals who are passing through a life course. Therefore, the description of family life is one of *aggregate* clusters of families, communities and individuals. We further assume that all of these levels of analysis have a significant impact on which of life's strategies to choose.

Father Involvement: Assessment and Measurement

By employing a broad definition of father involvement, as we do, three features are particularly striking. First, fathers can be involved with their children in many ways. Palkovitz (1997), for example, identifies fifteen general types of paternal involvement (e.g., doing errands, planning, providing, shared activities, teaching, and thought processes, see Figure 1 for a complete list). Second, there is a diverse array of potentially overlapping dimensions or aspects associated with the numerous ways fathers are either involved with their children and/or make contributions to their well-being (Amato, 1998; Hanson and Bozett, 1987; Fox and Bruce, 1996; Palkovitz, 1997; Lamb, Pleck, Charnov, and Levine, 1987). Third, there are vast individual and sub-cultural differences in how persons define and invest in these dimensions. By contrast, because the core features of mothering (nurturance and protection) are more universally recognized, much greater consensus exists about "good mothers" than about "good fathers." Men committed to being "good fathers" may perform in vastly different ways, with the same performances sometimes being viewed as successful or unsuccessful depending on the implicit definitions held by those making the evaluations. These facts confound efforts to examine fathers' involvement and to articulate the motivations related to it. Ideally, we are interested in determining the factors that lead to positive ways fathers are involved with their children (Pleck, 1997).

Domains of paternal involvement. Efforts to develop a theoretically meaningful and tidy categorization scheme for the varied forms of paternal involvement is fraught with difficulties. Fathers' assorted forms of involvement can be grouped together in various ways. The most rudimentary approach reveals that men's experiences as fathers can be categorized within one of three overlapping domains of functioning: cognitive, affective, and behavioral (Palkovitz, 1997; Doherty, 1997; Hawkins and Palkovitz, 1997). In other words, when we think about what fathers do with and for their children, we are able to place them within one of these three domains. What becomes apparent is that any behavioral expression that can be described as paternal involvement also contains cognitive and affective components. To date, however, researchers have concentrated on measuring and studying fathers' behaviors.

In addition to these conceptual tools, researchers might want to emphasize the key substantive themes or dimensions associated with paternal involvement. These would include fathers' nurturing and provisioning, moral and ethical guidance, emotional, practical, and psychosocial support of female partners, and economic provisioning or breadwinning (Figure 1).

The nurturance and provision of care to young children has typically been assessed using time use data on fathers' activities and it has been referred to in the literature as "paternal involvement" (Lamb et al., 1987; Pleck, 1997). While most observers view fathers' nurturance as a desirable form of fathering, there continues to be widespread disagreement about the importance of this dimension relative to other aspects of fathering. When it is evaluated positively, its importance may still vary depending on the age and gender of the children. Even though (or perhaps because) this dimension approximates "mothering" in many respects, it is almost universally viewed as secondary--less important than mothering by mothers, and less important than the other dimensions of fatherhood.

Second, moral and ethical guidance is viewed as a core feature of fatherhood within most religious traditions even though, in reality, most such guidance or socialization within the family is performed by mothers. Furthermore, when fathers are involved in socialization of this sort, their impact may be indirectly mediated by children's identification with and imitation of their fathers, regardless of any efforts on the fathers' part.

A third aspect involves the emotional, practical, and psychosocial support of female partners (biological mothers or stepmothers). When this third aspect of father involvement is loosely defined, it can also refer to aspects of social capital derived from coparental relations noted earlier.

Finally, economic provisioning, or breadwinning, is the dimension of fatherhood that is probably viewed by many of the stakeholders who define fatherhood as one of the most central aspects to fatherhood and paternal involvement. This dimension has clearly been one of the focal points of many social policy and programatic efforts during the past two decades.

While fathers and evaluators in most subcultural groups tend to acknowledge each of these dimensions of fatherhood to some extent, they may have different views about their relative importance. Thus, it is not very informative to ask individuals about the personal significance of fatherhood without first ascertaining what it means to them and their children. Unfortunately, few researchers have done this; consequently, the motivational bases of fatherhood or paternal involvement remain poorly understood. When studies have been conducted, it is not always clear that the researchers' conception of fatherhood matches the respondents'. In addition, different metrics are needed to assess the fulfillment of each dimension of fatherhood, and performance is easier to measure in some areas (e.g., economic provisioning) than others (e.g., moral guidance). Outside narrow research contexts, the easiest data to gather involve fathers' time use and economic provisioning, though in neither case do the available statistics directly and clearly tap either fathers' involvement or motivations. Moreover, these and other measures of fathers' involvement and subjective phenomena related to fathers are fraught with complex measurement issues resulting from different family members providing competing assessments of relevant variables (see Braver, Wolchik, Sandler, Fogas, and Zvetina, 1991; Seltzer and Brandreth, 1995; Smith and Morgan, 1994). Nevertheless, numerous studies indicate that a considerable amount of similarity exists between fathers' assessments of their involvement and their wives' reports (see Pleck, 1997).

Time Use Data and "Paternal Involvement" Measures

Much of the research on paternal involvement has examined how much time fathers spend with their children and what sorts of activities occupy that time (Lamb, Pleck, Charnov, and Levine, 1985; 1997; Pleck, 1983; 1997). Many of these studies involve small and often unrepresentative samples--a perennial problem in developmental research. Fortunately, this area of research has recently been augmented by several studies based on nationally representative samples of individuals (both mothers and fathers, e.g., NSFH) who have been asked what fathers do and how much they do.

Given the availability of these data, it would seem easy to determine what contemporary fathers really do. Sadly, the task is not as easy as it sounds because the results of different surveys vary dramatically. One problem is that different researchers have invoked very different implicit definitions of parental involvement, using different activities as aspects of paternal involvement. Thus, it is very difficult to compare results.

Components of involvement. One way to make sense of these data is to first group the studies according to the implicit definitions of paternal involvement they use. For analytic purposes, it is useful to consider the three components of parental involvement as they were originally outlined by Lamb et al. (1987). The first and most restrictive type is time spent in actual one-on-one interaction with a child (whether feeding her, helping him with homework, or playing catch on the sidewalk). This form of time use, which Lamb and his colleagues labeled engagement or interaction, does not include time spent in child-related housework or time spent sitting in one room while the child plays in the next room. This latter type of time use represents a second category comprised of activities involving less intense degrees of interaction. These activities imply parental accessibility to the child, rather than direct interaction. Cooking in the kitchen while the child plays in the next room, or even cooking in the kitchen while the child plays at the parent's feet, are examples.

The final type of involvement is the hardest to define but is perhaps the most important of all. It taps the extent to which the parent takes ultimate *responsibility* for the child's welfare and care. It can be illustrated by the difference between being responsible for child care and being able and willing to "help out" when it is convenient. Responsibility involves knowing when the child needs to go to the pediatrician, making the appointment, and making sure that the child gets to it. Responsibility involves making child-care and babysitting arrangements, ensuring that the child has clothes to wear, and making arrangements for supervision when the child is sick. Much of the time involved in being a responsible parent is not spent in direct interaction with the child. Consequently, survey researchers can easily overlook this type of involvement.

Quantifying the time involved in the responsibility component to involvement is difficult, particularly because the anxiety, worry, and contingency planning that comprise parental responsibility often occur when the parent is ostensibly doing something else. Unfortunately, and as noted earlier, while the mental work associated with parenting is quite important, and most salient to this third type of time use, researchers have focused little attention on how and the degree to which fathers actually think about their children (Palkovitz, 1997). One notable exception is Walzer's (1996) qualitative analysis of the gendered patterns associated with parental care of infants. Not surprisingly, this study revealed that new mothers are much more likely than fathers to think independently about and plan for their infant's care.

Problems in Consistency

When the three different types of parental involvement covered in the more recent studies are differentiated, greater consistency is found from study to study than was apparent in earlier studies (Rebelsky and Hanks, 1971; DeFrain, 1975), but a considerable degree of inconsistency remains. In part, this is because the distinction between the three types of involvement has been applied retrospectively to the results of independent studies conducted years earlier. Thus, there are still differences across studies in specific definitions of engagement, accessibility, and responsibility. For example, in one study using a major national survey, ``watching TV together" was grouped with activities of the interaction type, whereas in another study, it was included as a component of accessibility.

To integrate and compare the findings of different studies, each researcher's idiosyncratic definition of involvement must be allowed to stand, but relative rather than absolute measures of paternal involvement must be used to compare results. Instead of comparing those figures purporting to measure the amount of time that fathers spend "interacting with" their children, proportional figures must first be computed (i.e., compared with the amount of time that mothers devote to interaction, how much time do fathers devote to it) and these proportional figures can then be compared. When this strategy is used, the picture becomes much clearer. Surprisingly similar results are obtained in the various studies, despite major differences in the methods used to assess time use (diary versus estimate), the size and regional representation of the samples employed, and the date when the studies were conducted.

Time proportions. Lamb et al.'s (1987) review of data for two-parent families in which the mother is unemployed, suggested that the average father spent about 20% to 25% as much time as the mother did in direct interaction or engagement with their children, and about a third as much time being accessible to their children (see also Pleck, 1983; 1997). The largest discrepancy between paternal and maternal involvement was in the area of responsibility. Many studies show that fathers assume essentially no responsibility (as previously defined) for their children's care or rearing. In two-parent families with an employed mother, the levels of paternal compared with maternal engagement and accessibility are both substantially higher than in families with an unemployed mother (Lamb et al., 1987; Pleck, 1983; 1997). Lamb et al. (1987) reported figures for direct interaction and accessibility averaging 33% and 65%, respectively, whereas Pleck's later review reported that the averages had increased to 44% and 66%. As far as responsibility is concerned, however, there is no evidence that maternal employment has any effect on the level of paternal involvement. Even when both mother and father are employed 30 or more hours per week, the amount of responsibility assumed by fathers appears as negligible as when mothers are unemployed.

In light of the controversies that have arisen on this score, it is noteworthy that fathers do not appear to spend more time interacting with their children when mothers are employed; rather the proportions just cited go up only because mothers are doing less. Thus, fathers are proportionately more involved when mothers are employed, even though the depth of their involvement in absolute terms, does not change to any meaningful extent. The unfortunate controversies in this area appear attributable to a difference between proportional figures and absolute figures. On the other hand, studies focused on time use pay scant attention to the quality of maternal and paternal behavior. Maternal employment has probably led to changes in the types of activities in which fathers engage and new studies may show increases in the extent of paternal responsibility.

Although spending time with children may or may not represent an important aspect of fatherhood to the individuals concerned, time diary studies have shown that the amount of time fathers spend with their children is associated with socioeconomic class membership (lower class fathers tend to spend more time with their children), age (fathers spend more time with younger than with older children), and gender (fathers spend more time with boys than with girls).

Positive paternal involvement.

A recent development in the conceptualization and measurement of paternal involvement includes a series of efforts that focus on the positive content of fathers' behaviors (for a review, see Pleck, 1997). Thus, in the past decade or so, a growing number of scholars have begun to systematically think about and measure the content of paternal involvement (e.g., Amato, 1987; McBride, 1990; McBride and Mills, 1993; Radin, 1994; Snarey, 1993; Volling and Belsky, 1991). For example, using her Paternal Index of Child Care Involvement (PICCI), Radin (1994) has been able to tap five different dimensions of positive paternal involvement which she labels; statement of involvement, child-care responsibility, socialization responsibility, influence in childrearing decisions, and accessibility.

Some of the most promising new work on conceptualizing positive paternal involvement draws upon the generative fathering perspective. In particular, Palkovitz's (1997) expanded conceptualization of paternal involvement should be appealing to those researchers and policymakers who have become more sensitive to the myriad ways fathers affect their children's development and well-being. By restructuring and expanding its treatment of the involvement concept, this *preliminary* framework may generate a new wave of research on fathers. In addition to his expanded interpretation of the ways fathers can be involved with their children, and his interest in the specific domains in which this involvement operates, Palkovitz explores how paternal involvement can be understood by considering a series of simultaneously occurring continua (described below). Palkovitz, by drawing attention to the continua theme, reminds researchers from various disciplinary backgrounds that thinking of fathers as being either more or less involved in their children's lives in a global sense does little to advance our understanding of paternal involvement, or how fathers' involvement affects children's well-being and development. Instead, it is more meaningful to assess the specific ways fathers are involved with their children in terms of various co-occurring continua.

We briefly discuss five of these continua (time invested, degree of involvement, observability, salience, directness) and mention two others (proximity and appropriateness). The most obvious continuum, and one that we discussed earlier, involves the amount of time fathers invest in any particular form of paternal involvement. When conceptualizing paternal involvement, it is important to keep in mind that the time fathers invest in their children's lives does not always reflect their degree or depth of involvement. Some fathers, for instance, may spend little time playing with their children, but their degree of involvement in this area may be quite high if they make important decisions about how their children's playtime is structured. Other fathers may spend a great deal of time doing certain things with or for their children, but they may invest little of their heart and soul into these situations. They may simply be going through the motions of being involved.

We would also want to be aware of how observable fathers' involvement may be in certain situations (a consideration that is relevant to research and debates that deal with how parenting patterns are influenced by cultural factors, developmental trajectories, and gender differences). Fathers' thoughts about monitoring, planning, or worrying about their children's lives may not represent observable behaviors, but this cognitive activity may significantly influence how they interact with their children in different settings. Those fathers who think at length about how they might help their children deal with personal problems or developmental issues are much more likely to be well-prepared to be involved with their children in a positive manner than fathers who respond to their children without such deliberation.

Another continuum relates to the degree of saliency the paternal function or task has for fathers and their subjective interpretation of this activity. This continuum appears to be closely related to the "degree of involvement" continuum. In some instances, tasks may be highly relevant to fathers because they are aversive or pleased with them. Situations where fathers are completely indifferent to some form of paternal involvement represent one of the extreme poles of the saliency continuum.

The final continuum we mention here is the extent to which involvement is direct or indirect. Given the longstanding importance of the traditional male breadwinner role, much of what fathers have done for their children can be viewed in this way. Resident fathers who work overtime to provider financially for their children are engaged in indirect forms of involvement. Likewise, nonresident fathers who pay child support or monitor their children's lives through third parties are indirectly involved.

While it is beyond the scope of our report to describe or critique this particular approach in more detail, we suspect that scholars with allegiances to various disciplines or methodologies would stand to benefit by becoming more familiar with at least some of this framework's central themes. This work reminds us that efforts to better understand paternal involvement as a multidimensional construct are clearly warranted. Fox and Bruce (1996) provide us with a good beginning by developing an inventory of constructs depicting fathering that is organized according to three categories they label, evaluative, attitude/belief, and behavior. After reviewing the literature on men's parenting behavior, they conclude that the conceptualization of fathering behaviors is thin in several areas that involve: a) the potential for child-specific parenting, b) role sharing and role spelling between father and mothers, c) role cycling or the rotation among fathers' varied activities as disciplinarian, nurturer, etc., d) the distinction between fathers' investments in the status of father versus the process of fathering, and e) the potentially different perceptions of fathering experiences among men from different sociocultural backgrounds. Their largely social psychological approach is relevant to many of the points we make in this report and can serve as a springboard for refining the conceptualization of paternal involvement and proposing future areas of research.

Father's Role as Economic Provider

As noted above, the role of economic provider is fundamental to most persons' definition of fatherhood and is a critical form of paternal involvement, broadly defined. For these reasons, and given its policy significance, we specifically discuss in this section fathers' provision of money for food, clothing, shelter and other consumption items. While the economic provide role is also linked to symbolic aspects relating to power, intergenerational transmission of values (e.g., work ethic), and the family connections to the larger community (e.g., social capital), we defer our discussion of some of these issues to our subsequent section on family process.

Economic resources. To assess the importance of the economic provider role for children, we first need to ask whether increased economic resources enhance children's well-being. As Brooks-Gunn and Duncan (1997) decisively show in The Consequences of Growing Up Poor, economic resources are particularly important during early and middle childhood, especially for cognitive outcomes. Specifically, higher income is associated with a richer learning environment.[9] In addition, it is suggested that economic resources matter in part because economic instability (e.g., unstable work, income loss, etc.) can lead to marital conflict which itself has negative consequences for children (Conger and Conger, 1997).

Although the results cited above are suggestive of several mechanisms through which economic resources can influence child outcomes, many unanswered questions remain. For example, what is the tradeoff between time and money? Fathers who provide more money to the family often do so at the cost of spending less time with their families. Is the choice of money over time beneficial for children and for other aspects of father involvement with children? Some literature suggests that there is an interaction between being perceived as a good provider (and thus spending a substantial amount of time in the labor force) and the quality of time that fathers spend with their children.

Decisions about money. A second question relates to whether fathers spend money in different ways than do mothers, and which parent has more power over spending decisions. The recent household bargaining literature in economics presents evidence that children are better off (higher calorie intake, lower mortality rates, more education) when mothers have more autonomy over spending decisions. This evidence may suggest that mothers spend money in ways that are more "child friendly" than do fathers. However, there is little direct evidence on spending patterns for specific individuals within the household. To address the kinds of questions posed above, we need data that combine information on family spending patterns, time allocation, and measures of child outcomes.

A related question is how much of the family income is spent on children as opposed to adults? There is a large literature on this topic (see Betson, 1990 for a review). Estimates of the proportion of family income spent on one child range from 16% to 33%. Estimates for two children range from 27% to 49% of income. Thus a substantial proportion of family income is consumed directly by children. Lazear and Michael (1988) find that the proportion spent on children varies by characteristics of the household. More highly educated and older parents spend a larger proportion of income on children. Households with two working parents also spend more.

Nonresident fathers and economic provisioning. The literature on the "cost of children" has been used by policymakers to assess how much absent parents (predominantly fathers) should pay to support their children. As part of the Family Support Act of 1988 all states were required to implement numerical formulas called child support guidelines specifying how much child support an absent parent should pay. These guidelines were intended to mimic the amount of income a nonresident parent would have spent on a child had he/she been living with that child. These guidelines have been criticized both by women's groups as being too low and by fathers' groups as being too high. However, there is some evidence that guidelines may make it easier for parents to reach cooperative agreements by creating a sense of fairness about the process (Argys et al., 1997). When child support agreements are cooperative, fathers are more likely to pay (Nord and Zill, 1996a).

Payment of support. Despite legislative efforts during the 1980s to increase the frequency and size of child support awards and reduce delinquency in child support payments, many nonresident fathers still do not pay any formal child support. In 1991, 66% of ever married custodial mothers had a child support award compared to only 27% for never married mothers. Half of the nonresident fathers (51%) who owed child support paid the full amount; 24% paid a partial amount, and the remaining 25% paid nothing. Overall, about 38% of custodial mothers received any formal child support, and the mean amount received was $3,011 (U.S. Bureau of the Census, 1995).[10]

Data and research on the provider role of nonresident fathers usually focus on formal child support awards and payments. However, nonresident fathers may also provide support for their children informally through monetary or nonmonetary contributions to the mother. Data from the National Longitudinal Survey of Youth (NLSY) shows that even in the absence of a legal child support award agreement, some fathers voluntarily provide informal financial support. For instance, among a child support-eligible sample in the NLSY with no awards, 24% of divorced or separated mothers and 47% of mothers of children born outside of marriage reported receiving at least some monetary child support from fathers since their eligibility (Argys, Peters, Brooks-Gunn and Smith, 1996).

Even fathers in marginal or economically unstable conditions are found to contribute food, diapers, clothing, and some financial assistance informally (Hardy, Duggan, Masnyk, and Pearson, 1989; Sullivan, 1993). Interviews with 155 young unmarried fathers enrolled in a pilot project indicated that many of these fathers preferred to purchase items and services for their children rather than to pay money directly to the mother or the child support office (Achatz and MacAllum, 1994). Fathers pointed out that buying needed items allowed them to directly provide support and maintain control over how their money was spent. In addition, they viewed these tangible contributions as symbols of responsible fatherhood that gained them respect in their community. A study of 214 mothers on AFDC (Edin, 1994) revealed that fathers assumed more financial responsibility for their children informally than through the formal child support system. One-third of the women in the sample reported regular financial support from the fathers, while only 14% received this support through the formal child support enforcement system. An additional 30% of mothers reported that in lieu of monetary support, fathers provided items, such as disposable diapers, school clothing and shoes, and/or Christmas and birthday gifts. Similarly, Greene and Moore (1996) examined early descriptive data from the Jobs Opportunities and Basic Skills Child Outcomes Study and found that while about 17% of fathers provided child support through the formal system during the past year, 42% provided informal support, such as money, groceries, clothes, or other items directly to the mother.

Child support and well-being. There is a growing literature on the relationship between child support and child well-being (see Garfinkle and McLanahan, 1994; Nord and Zill, 1996b). Generally, studies find that child support has positive effects on children's cognitive achievement and educational attainment that cannot be accounted for solely by the financial contribution of child support. The reason for this positive correlation is complex. One hypothesis is that success in fulfilling the economic provider role may free fathers to become involved with their children in other beneficial ways. Another theory suggests that fathers who pay child support may want to continue to see their children as a way of monitoring that investment (Weiss and Willis, 1985). Alternatively, the causation could go in the other direction. Fathers may agree to pay child support only as a means to maintain access to their children. Finally, it is possible that there is a third factor that would lead some fathers to have high levels of both time and money involvement (e.g., altruism towards children).

Stepfathers' and male partners' economic provisioning. Very little is known about the economic contributions stepfathers and male partners in cohabiting relationships make to the household and to their partner's children. Generally speaking, stepfathers' income is included in total family income when determining eligibility for welfare benefits, whereas in many states male partners' incomes are not included. Similarly, an important policy debate in formulating child support guidelines is how (or whether) to account for the additional economic obligations a nonresident father may incur if he remarries. These policies are based on certain assumptions about the degree to which stepparents or male partners provide economic resources to children, but, at present, there is little data on which to base these assumptions.

Motivation

Having briefly reviewed some of the types and potential consequences of fathers' involvement, it is useful to discuss the key conceptual issues concerning fatherhood, paternal involvement, and motivation. Men may have somewhat separate, yet interrelated views about biological paternity, aspects of social and "responsible" fatherhood, and specific ways of being involved with their children. Obviously, then, different conceptions or definitions of concepts are likely to be associated with different sets of motivations. We must also recognize that in many respects men's desires to procreate are often intimately related to their perceptions about assuming specific social father roles (e.g., economic provider, nurturer), and their commitment to being "responsible" fathers (Marsiglio, 1995a; forthcoming; Tanfer and Mott, 1997). Furthermore, our discussion of motivation issues is affected by our decision to incorporate men's prenatal roles into our conceptualization of social fatherhood.

Reasons for involvement. We are mainly concerned with men's motivations to become "responsible" social fathers who are committed to enhancing their children's well-being through their positive involvement with them. Conceptions of fatherhood, as well as the extent to which individual fathers are motivated to behave in a responsible manner, appear to be shaped by cultural images of fatherhood represented in the media and other outlets, as well as men's socio-cultural background, their current social circumstances, and their earlier experiences, particularly the behavior of their own parents. More specifically, some of the principle reasons men are motivated to become social fathers are because they want:

1. the experience of caring for and raising children,
2. an opportunity to strengthen their bond with their romantic partners,
3. to ensure that they are not lonely or financially vulnerable in their later years of life, or,
4. to feel more connected to their extended family and/or friends.

Likewise, men's motivation to be responsible fathers who are positively involved with their children my stem from some of the aforementioned factors as well as:

1. their genuine love for their children,
2. societal and familial pressures to act like masculine adult males (the "shame" factor in the extreme), and
3. their perceptions of how much their children need their involvement or financial resources owing to their perception of their sexual partner's (or former partner's) financial and relationship circumstances.

As we consider how these or other motivations may prompt fathers to strive to be responsible fathers, we should be aware that this task is made more difficult when we acknowledge the multiple ways in which paternal involvement can be expressed. Moreover, the diverse views held by the various stakeholders about what constitutes "good fathering" adds to this complexity.

Instead of trying to rank motivations in order of importance or associate them with specific expressions or dimensions of fatherhood, it may be more productive to enumerate the most important motivational or explanatory categories that have been hypothesized, recognizing that the empirical research in this area is scanty, at best. As expected, scholars with ties to anthropology, developmental psychological, life course perspectives, social psychology, sociobiology, and sociology each tend to address motivational issues from a different perspective.

Socio-biological motivations. Sociobiologists, for example, emphasize that both men and women strive to maximize the representation of their genes in future generations. Several implications flow from their observation that males (unlike females) can be biologically involved in many pregnancies simultaneously and do not need to make major physiological contributions to the physical survival of their offspring after insemination. The `down side,' according to these same theorists, is that men can never really be sure of paternity, and thus always face the risk of investing resources in someone else's children (genes). Several predictions flow from these simple (if controversial) observations:

1. Men invest less in individual offspring because the opportunity costs are so much lower and the risks of mis-investment are so much higher than they are for women.
2. Men support their partners and offspring economically and socially (rather than physiologically).
3. Biologically determined differences in male and female investment may continue after delivery.
4. Like mothers, fathers invest time in the care and rearing of their children in order to bring children to reproductive maturity. Unlike mothers, their behavior does not appear to be hormonally facilitated.
5. The more men invest in partners and their children, the more they want to be sure of paternity; the extent to which they provide economic and socio-emotional support may affect the extent to which their partners' later children have the same fathers.
6. The fewer the children, the greater the motivation to invest time and resources in the success of each.

The clarity of some of these predictions is offset by the fact that the motivations are unconscious and must therefore be studied, not by probing attitudes and values in interviews, but by studying the effects, often at the level of population groups rather than individuals. Fortunately, the desire to be a father isn't driven solely (or even consciously) by the desire to propagate one's genes, and sociobiological explanations in terms of ultimate causes involve a different level of analysis than psychological and sociological explanations.

Generativity. Theorists who stress developmental issues and the generativity theme contend that some fathers are motivated to be involved with their children because such involvement is related to healthy adult development (Hawkins and Dollahite, 1997; Palkovitz, 1997; Snarey, 1993). Many individuals find fulfillment in shaping the growth and development of another person, and this type of experience represents a motivating force for some fathers. Such participation is hard to quantify empirically, but time-use measures come closest, especially when they illuminate both what and how much fathers do for or with their children. Moreover, large scale studies do not measure how well fathers perform these roles or tasks -- that is the focus of smaller scale studies that are informed by direct observation.

The type and extent of individual involvement in fathering may also be affected by recollections of the fathering men experienced as children as well as their interpretation of other men's fathering behaviors in specific social situations. Some men (particularly those who embrace higher levels of hands-on involvement and avoid being defined solely by breadwinning) are motivated to emulate the behavior of their fathers while others who behave in this way are apparently driven by a desire to be better fathers than their own fathers (Fox and Bruce, 1996). Meanwhile, Daly's (1995) recent qualitative work suggests that fathers may be less likely to turn to concrete figures to model their behavior and more likely to pick and choose actions, values, and standards that are displayed by various parents they encounter in their everyday lives.

Maturity and status. Meanwhile, theorists who focus on life course, identity, and gender issues shed light on some men's motivations by suggesting that being a father denotes maturity and confers status in many societies and subcultures. Fathers can reap the benefits of social status when their partners and children are well-provisioned and successful (as denoted by school performance, sports achievement, college admissions, and career attainment). Attitude surveys may indicate the relative if not absolute importance of these motivations, as well as differing perceptions of the ways in which these desired outcomes can best be hastened by coaching, supervision, warmth, play, and physical provisioning.

In a related social psychological vein, identity theory (Marsiglio, 1995d; Ihninger-Tallman, Pasley, and Buehler, 1995) has been extended to address issues associated with men's paternal identity and involvement. This model emphasizes fathers' commitment to role identities that are negotiated within the context of structured role relationships. As such, it implicitly deals with motivational issues in that fathers' commitment to being a particular type of man, partner, and father may affect their desire to be involved with their children in specific ways. This perspective is valuable because it draws attention to the interpersonal and social context within which men develop their individual dispositions to think, feel, and act toward their children. Moreover, it provides a theoretically meaningful link between fathers' perceptions of themselves and their actual paternal involvement. By emphasizing identity within a complex relational context, this theory also points out how coparental issues may condition men's involvement with their resident and nonresident children (Fox and Bruce, 1996). We deal more explicitly and at greater length with these concerns in the next two sections.

Moderating factors. To conclude this section, we build upon the work of Palkovitz (1997) and Lamb and his colleagues (1987) to summarize the types of factors that condition or moderate fathers' positive involvement with their children. We discuss three broad types: individual, interactional context/process, and macro/meso. As seen in Figure 2, these diverse factors range from developmental and life course considerations for both fathers and their children, to factors associated with the context and processes that shape fathers' interactions with their children (e.g., mothers, school officials), to more macro/meso types of factors that affect fathers' rights and opportunities to be involved with their children in particular ways. Together, these types of factors shape the overall context within which paternal involvement is expressed and evaluation occurs.

FAMILY PROCESSES AND FATHERING

As was mentioned in the beginning of this report, fundamental social changes in family structure and generalized definitions of gender roles have raised many questions about the significance of fathers and their interactions with children. In this section, we expand on the dyadic and triadic interactions (with a focus on paternal-child interaction) used to described "family process" (sometimes called family dynamics) and their relationship to important child well-being outcomes.

Definition. Family process informs us about how family members think, feel, and act toward each other in their relationships (Brodrick, 1993; McKenry and Price, 1994). By definition, family process is measured by assessing the shared relationships of multiple family members. This level of analysis is interactional and the focus is the family group instead of individual or macro-levels. For example, two or more family members' perceptions about how individuality and intimacy are tolerated in a family represents a family process measure (Gavazzi, 1994).

Family process and social capital. One promising model of how family dynamics are employed to enhance the lives of children can be found in the theoretical work of Coleman (1988). He suggests that the co-parental relationship and the dyadic relationship between parent and child represent a resource and these resources are inherently dyadic. He further posits that the level of social capital available from the father that could be transmitted to the child can only be transferred in the context of higher quality dyadic relationships. Higher quality might be, for example, spending time together (a primary feature of the interaction theme in Lamb's work) but is more likely to be found in the nature of the interaction. In particular, higher quality interaction exists when the father is more supportive, has higher levels of effective communication, understands appropriate distance regulation, and is appropriately flexible, his resource base (either human, financial, or social capital) is more likely to be transferable to the child.

The effects of being able to transfer resources is critical and varies by ethnicity and gender. Additionally, the processes are different depending the life course phases of family members and family structure features (i.e. the age of the child, age of parent, number of siblings at home, etc.).

Steelman and Doby (1983) and Rumberger (1983) have found strong links between parental resources and high school completion rates as well as offspring's cognitive skills. These results are modified by the parent-child relationship and vary by race (black/white). Further, when children are young at the time of parental separation, fathers' human capital is more influential when they have close contact with their children (Amato, 1998). Future research in this area needs to examine the effects paternal and maternal income *vis a vis* family process variables.

Such work is valuable as researchers continue to explore the links between important issues such as poverty and children's well being. Financial capital, distributed in the context of a caring and appropriately supervised parent/child relationships, may be substantially more effective in reducing the effects of lower education, poverty, and higher crime rates than the dispersing of money only. By understanding family processes, we may improve our ability to unravel the question of what fathers potentially contribute to the family besides provisioning and limited child care.

Assumptions About Family Processes

To understand how fathers fit into the discussion of family process, four assumptions need to be examined. First, family process describes the non-static ongoing dynamics of interaction found within a family unit. Second, it is often assumed that most of what happens in families is hidden or latent even to the family. It is only through multi-perception research that researchers can begin to have some understanding about those dynamics. Third, it is assumed that family process interactions are recurring, repetitive patterns of interaction. Therefore, over time, family members (or an observer) can begin to notice and record these redundant patterns of interaction and then induce from them attendant rule structures and belief systems that drive the redundancies. Fourth, family processes usually reflect hierarchically structured rules and interactions. The rules and patterns of interaction tell us who is in charge, who should do what at certain times, who can change the rules, and who can administer them. Often these rules of hierarchy tell us about gendered power differences or cultural imperatives that shape domination patterns within the redundancies.

Examples of Family Processes

A perusal of scholarly family process literature manifests only a few recurring family process ideas. From the larger list of family processes only three examples will be discussed in depth here and they are: *distance regulation* (i.e., enmeshment, individuation, boundary definition, triangulation, and family intrusiveness), *flexibility* (i.e., adaptability, coping), and *support.* A short list of other family process constructs not discussed here are: supervision/ monitoring (which includes rule setting, rule implementation); affection (which includes levels of generosity, caring, loving, and kindness); communication; and ritualization).

While family process has clearly been shown to have much to do with understanding the well-being of children, unfortunately, research explaining how fathers contribute to these processes is relatively underdeveloped. The selected family processes discussed below have a research tradition and clear methodologies for acquiring data on mothers' and fathers' contribution to children's well-being. Even so, little research on these processes has been conducted that focuses specifically on fathers. Perhaps the exception to this notion is the work on power differences in families. Differentials in power between parents (when there are two) greatly influence the family dynamics associated with decision-making, resource allocation, and goal attainment.

Distance Regulation

Distance regulation contains two primary dimensions: (1) the parent's tolerance for individuality, or the relative tolerance that the system displays for each member to experience a sense of separateness from the family, and (2) the parent's tolerance for intimacy, or the relative tolerance that the system displays for members to be connected emotionally and psychologically to the family (Gavazzi, 1993).

Individuality and intimacy. Distance regulation patterns that tolerate both individuality from the family and intimacy within the family create a well-differentiated family system. If the distance regulation patterns display high tolerance for only one dimension of family differentiation -- individuality or intimacy -- the family is thought to have a moderate level of differentiation. Here, families that retain a sense of intimacy but do not tolerate individuality well have been labeled "enmeshed," whereas families that tolerate individuality among its members without retaining a sense of intimate belonging have been labeled "disengaged" (Minuchin, 1974). Finally, distance regulation patterns that do not tolerate individuality claims and do not tolerate intimacy within the family are thought to be poorly differentiated (Gavazzi et al., 1994).

Individual family members contribute to family differentiation through their multiple interactions with other members of the family, and each member does have their own personal experiences of their family system. By definition, however, no one individual family member can retain a level of family differentiation. Further, the level of family differentiation is not the mere summarization of each member's contribution to the family, but a latent construct derived from the response of each family member.

Adolescence and distance regulation. Distance regulation in the family has received increased theoretical and clinical attention in recent years, especially regarding families with adolescents (Allison and Sabatelli, 1988; Anderson and Sabatelli, 1990; Sabatelli and Mazor, 1985). While most of these researchers focus on parent-child relationships, few differentiate between the gender of the child or parent and how distance regulation may differ for each. Nevertheless, distance regulation strategies between parent (father and/or mother) and child vary greatly by family with differing outcomes.

The ways in which the father and mother regulate individuation and familial intimacy affect the adolescent's ability to make a successful transition into adulthood status (Carter and McGoldrick, 1989; Farley, 1979; Kerr and Bowen, 1988; Lapsley, 1993; Lopez and Gover, 1993). Basically, this family process is the mechanism by which parents promote or retard the development of appropriate child autonomy. One researcher (Broderick, 1993) speaks of family distance regulation as the primary mechanism that defines the bonding and buffering processes associated with healthy functioning in the family with adolescents. Family distance regulation is defined as the amount of individuality and the amount of intimacy that are tolerated within a family system.

Empirical Work on Family Distance Regulation

Recently, studies have generated an empirical foundation for these theoretical and clinical writings, especially with regard to families with adolescents. For instance, Gavazzi (1993) discussed how severity levels in a variety of presenting problems (e.g., school-related difficulties, peer relationship problems, individually oriented difficulties, and illegal activities) could be predicted by differentiation levels in the family. Also, Gavazzi (1994a) reported that distance regulation levels were predictive of Child Behavior Checklist (Achenbach and Edelrock, 1983) total problem scores. Other studies have noted similar links between levels of family differentiation and more specific problematic behaviors in adolescents. Bartle and Sabatelli (1989) reported a link between family differentiation levels and alcohol-related difficulties in adolescents. Sabatelli and Anderson (1991) found a relationship between family differentiation and adolescents' levels of depression and anxiety. Finally, Gavazzi, Anderson, and Sabatelli (1993) reported that both psychosocial development and problematic behaviors in adolescents were significantly predicted by family differentiation levels, a finding replicated by Gavazzi, Goettler, Solomon, and McKenry (1994).

Gender differences. While this research has a promising theoretical and empirical record, little has been done to look at parent gender differences. For example, we do not know if different levels of intimacy tolerance by fathers (versus mothers) has differential familial effects. Nor do we know if it is better (or not) for both parents to agree on a "family" level of tolerance and individuation. Also, little is known about the child outcomes when there is only one parent or only one physically present parent (and the other one is psychologically or physically absent). Neither do we know if there are cultural differences that promote different levels of distance regulation.

Problems in distance regulation. However, families with distance regulation problems (for fathers and mothers) report more pathological indicators, including depressive disorders (Asarnow, Goldstein, et al., 1993), disruptive behavior and obsessive-compulsive disorders (Hibbs, Hamburger, et al., 1991; Hibbs, Hamburger, et al., 1993), eating disorders (Grange, Eisler, et al., 1992), and aggressive and non-aggressive attention deficit hyperactivity disorders (Marshall, Longwell, et al., 1990). Additionally, these families are more likely to report that their teen is involved in "at risk" psychopathological conditions (Albers, Doane, and Mintz, 1986; Cook, Kenny, and Goldstein, 1991; Schwartz, Dorer, et al., 1990; Valone, Goldstein, and Norton, 1984). In general, these studies have linked higher levels of expressed emotion in the family to lower levels of intrapsychic and interpersonal functioning in both clinical and non-clinical adolescent samples. Initial results by Gavazzi (in press) indicate that the distance regulation style of the father may have a greater impact on pre-teen and teenage children than the mother's style. Certainly more research is needed to understand these processes better.

Father and distance regulation. In a recent study by Bartle and Gavazzi (1994), it was found that by analyzing the influence of the father's distance regulation behaviors, one could significantly predict better adolescent outcomes such as behavior problems and ease of on-time developmental transitions. When analyses were conducted in which fathers' and mothers' data were combined, the effect was still there, but when run with mothers' data only the effects disappeared. In other words, when the relationship between father and adolescent (irrespective of gender of child) was strong (i.e., appropriate levels of distance regulation) the child was much less likely to be in trouble with school and/or the law. When that relationship was poor they were much more likely to report problems with both school and local police.

In another study, Gavazzi (in press) reports that father's scores on family distance regulation (in a sample of involved and active fathers) is very different than that of the mother's and/or the teen in a family. In other words, the father's perception of what happens in the family does not statistically resemble the mother's or the teen's and yet the mother's and teen's perception statistically converge. Even when he is there and contributing in a positive way, his view of what is going on inside the family is quite different than other family members. His view is so remarkably different that the statistical models rejected the father's scores as coming from the same family to which he belonged.

Such studies create a research imperative in which multiple views of family events, feelings, and goals are measured. Only when these family process measures are done with representative large scale studies will we have the confidence to suggest specific policy recommendations about the role of the father in enhancing children's well-being.

Flexibility

An increasingly large amount of family-based literature has been devoted to the study of the amount of flexibility families display in response to internal and external demands for change. In essence, it is believed that families able to demonstrate greater flexibility in the face of demands for change will respond in more healthy ways thereby meeting the needs of its individual members (Terkleson, 1980). This literature contains a number of constructs related to flexibility in the family, including similar constructs which have been used in family research. Among these are adaptability (Olson, Sprenkle, and Russell, 1983; Lewis, Beavers, Gossett, and Phillips, 1976), family problem-solving ability (Aldous et al., 1971; Reiss and Oliveri, 1980) and family coping styles (McCubbin et al., 1980; McKenry and Price, 1994).

Definition. Flexibility assesses the degree to which members are able to change the power structure, relationship rules, and roles in relation to developmental and/or situational stressors (Anderson and Gavazzi, 1990; Olson, Sprenkle, and Russell, 1979). Problem-solving abilities in the family involve the ability of its members to gain resolution to both instrumental and affective difficulties (Epstein, Bishop, and Baldwin, 1980). Coping in the family concerns the degree to which members are able to respond to calls for change by taking direct action, reframing a difficult situation in ways that become more manageable, and/or controlling the amount of stress and anxiety generated by the difficult situation (Boss, 1988; McCubbin and Patterson, 1982).

Empirical Work on Family Flexibility

While few studies have focused on mother/father differences with regard to flexibility, some researchers (McCubbin and Patterson, 1982) have suggested that there is a greater chance for a family to have appropriate levels of flexibility when there are two parents present. They suggest that having two adults (regardless of gender) balances and regulates the stresses and strains of daily living. Better flexibility, it is hypothesized, is created when the two adults can call upon one another for suggestions, creative solutions, and respite from the stress of parenting. However, we know nothing of differences in the process that men and women use to ameliorate or attenuate levels of familial flexibility.

Flexibility and well-being. At a more general level, however, research has shown a strong and generally linear relationship between variables associated with family flexibility and indicators of the well-being of family members (Anderson and Gavazzi, 1990; Beavers and Voeller, 1983; Cluff, Hicks, and Madsen, 1994). For instance, studies have linked lower levels of family adaptability to destructive parent-child interaction (Garbarino, Sebes, and Schellenbach, 1985), the presence of a juvenile offender (Druckman, 1979; Rodick, Henggeler, and Hanson, (1986), sexually abusive behavior (Alexander and Lupfer, 1987), level of psychopathology (Lewis, Beaver, Gossett, and Phillips, 1976) and chemical dependence (Freidman, Utada, and Morrissey, 1987; Olson and Killorin, 1985).

Other studies have linked decreases in problem-solving abilities to families seeking clinical help (Epstein, Baldwin, and Bishop, 1983; Fristad, 1989; Miller, Bishop, Epstein, and Keitner, 1985), families with a juvenile offender (Vuchinich, Wood, and Vuchinich, 1994) as well as the level of risk factors present (Byles, Byrne, and Offord, 1988; Kabakoff et al., 1990).

Additionally, a wide variety of interventions are based on increasing the problem-solving abilities of families who are dealing with a range of disorders (Patterson, Dishion, and Chamberlain, 1992; Kazdin, Siegel, and Bass, 1992). Finally, studies have reported significant association between family coping behaviors and physical health (Ross, Mirowsky, and Goldsteen, 1980), depression (Armsden et al., 1990; Arnold, 1990 Barrera and Garrison-Jones, 1992; Kandel and Davies, 1982; Puig-Antich et al., 1993), and a wide variety of other outcome variables associated with individual and interpersonal functioning (Olson et al., 1989; McCubbin et al., 1980; Perlin and Schooler, 1978).

Parental Support

Definition. Parental support, whether conceptualized as general support, physical affection, acceptance, or companionship, is a diverse category of behavior communicating warmth, affection, rapport, and feelings of being valued (Barber and Thomas, 1986; Peterson and Hanna, in press; Rohner, 1986; Stafford and Bayer, 1993). Parental support is viewed as an expression of the "loving" dimension of relationships in families. Such loving relationships are at least partly rooted in altruistic motives that seem to foster such things as bonding, security, harmony, protection, and opportunity for optimal human development in families (Burr, Day, and Bahr, 1993). In the case of the parent-child subsystem, nurturant or emotionally supportive relationships encourage the young to identify with parents and incorporate their attitudes, values, and expectations.

Outcomes. Consequently, parental support often contributes to moral internalization and conformity to parent's expectations (Hoffman, 1980; Peterson and Rollins, 1987; Stafford and Bayer, 1993). Other positive outcomes for children include autonomy and self-esteem. Consequently, parental support seems to foster seemingly opposite developments -- both responsiveness to or connectedness with parents as well as progress toward autonomy or individuality. Parent-child relationships characterized by considerable nurturance appear to provide a secure base (bonds of connectedness) from which children and adolescents develop confidence to explore outward and meet challenges that exist beyond family boundaries (autonomy or individuality) (Bowlby, 1988; Peterson and Hann, in press; Peterson and Leigh, 1990. Failure to receive sufficient levels of support, in turn, fosters feelings of separation, expressions of hostility and aggression, diminished self-esteem, as well as antisocial and risk behavior (Felson and Zielinski, 1989; Gecas and Schwalbe, 1986; Peterson and Rollins, 1987; Rohner, 1986; Stafford and Bayer, 1993; Young, Miller, Norton, and Hill, 1995).

Empirical Work on Support

Fathers' role in fostering the best outcomes for children has often been portrayed as one of showing children (even at early ages) how to become autonomous. In past research, the father was characterized as the one who showed the child how to be independent in the world (Adelson and Doerhman, 1980; Shulman-Klein, 1993). Additionally, the traditional view of the father is that he was summoned to, on occasion, reinforce stern rules, reaffirm boundaries, and administer harsh discipline (Sterns, 1991). Some have suggested that this type of figure-head, distant father who rules and demands had the purpose of preparing the young person for the harsh world (Collins and Luebker, 1991).

Support and child-well being. Contrary to previous research that highlighted the benefits of fathers' sternness, more recent research suggests that fathers are more likely to produce positive child outcomes when they contribute to youthful autonomy within the context of relationships characterized by closeness, mutuality, and *support* (Baltes and Silverberg, 1994; Baumrind, 1991; Grotevant and Condon, 1983; Peterson, 1994; Quintana and Lapsley, 1990). That is, adolescents become more self-directed when parents (especially fathers) promote a family environment in which the teen can seek advice, experience validation, and realize a sense of security.

In turn, an increased sense of autonomy and independence promotes other desirable outcomes (e.g., higher academic achievement, better mental health, and ease of transition in adult roles) in children as they mature and grow into adulthood. Limited research about the role of the father (*cf* Peterson and Day, in press) in this type of family process has greatly hampered efforts to understand the complexity of the parent-child dyad.

POLICY ISSUES

For public policy to be effective in promoting responsible fathering, it will need to be proactive, theoretically informed, and research based (Furstenberg, 1988; Marsiglio, 1995b). Recent government policy concerning men's family life has been dominated by punitive strategies to address domestic violence and child support issues. While these strategies and issues remain relevant to the prevailing social policy agenda, there is growing sentiment that the search for better policy results will depend on research that considers fathers' participation in family life in new ways.

Increasingly, policymakers and the general public acknowledge that many fathers want to be more involved, and in some cases are more active in their children's lives than previously thought. Even in those situations where fathers are physically estranged from their children, many observers believe that fathers can still be involved with their children in productive ways and provide social capital to them. These observers also recognize how important responsible fathering is for children's well-being. As a result, individuals seem eager to support social policy that promotes the desirable aspects of fathering, while at the same time minimizing the barriers that limit fathers' options for making a positive contribution to their children's well-being.

At present, there is a paucity of information about men's positive contribution to their families, and how family responsibilities may motivate men to behave in the world of work and the larger society. The development of social policy is therefore based on an incomplete understanding of how men behave in response to policy stimuli. The stakes are high and social policy regarding fatherhood may be much more important to areas such as crime, education, economic development, welfare, and human capital development than has been widely believed.

At least two historically novel trends related to fathers' experiences have significant implications for public policy. One trend involves the bi-polarization of fatherhood. This trend is evidenced by the simultaneous growth in the proportion of fathers who are interested in playing a more active role in their children's lives and the increasingly visible segment of fathers who are disengaging (or are pushed) themselves from their paternal responsibilities (Furstenberg, 1988). The other trend involves the growing diversity and dynamic nature to men's life course patterns and paternal roles as they find themselves in step, blended, cohabiting, and fictive families. These family types require men (and others) to visualize and negotiate new roles. To the extent that social policy is constructed through the lens of the traditional nuclear family model, new forms of responsible fathering by biological fathers or stepfathers are likely to be constrained.

General Policy and Research Issues

In this section, we briefly explore some of the key features of social policy and research germane to our conceptualization of responsible fatherhood and positive paternal involvement. Unfortunately, our understanding of fathers from a policy perspective is impeded because they are often considered in a piecemeal manner, usually within the context of narrowly defined policy-related questions.

Father's attachments to their children. The first issue to consider is how biological fathers establish relationships with their children. Fathers (biological and step) often develop attachments to their children and become committed to them, at least in part, because they have established a sexual relationship with their children's mother (Furstenberg and Cherlin, 1991; Marsiglio, 1995c). As a result, when men's romantic relationships with the mother is interrupted through a divorce or informal breakup outside of marriage, men's relationships with their children often deteriorate (Furstenberg and Cherlin, 1991). A key question, then, is: How can fathers sustain a relationship with their children in spite of their severed romantic ties to the mother of their children? Additionally, are men capable of rekindling a relationship with their children after it has waned? Can fathers establish relationships with their children even if they failed to do so when their children were much younger?

Divorce and coparental situations. As noted above, the unraveling of a marriage often leads to attenuated relations between fathers and their children. Intervention efforts to help fathers (and mothers) deal with the emotional turmoil induced by separation and divorce processes involving custody and visitation rights are warranted.

Despite some legal scholars' strong reservations about the feasibility of professional mediation for partners undergoing separation and divorce (Levy, 1993), it seems prudent to give serious consideration to public policies that would provide couples with easy access to mediation during their divorce negotiations as well as subsequently when they may need to address new family situations (Arditti, 1991; Arditti and Kelly, 1994; Lamb and Sagi, 1983; Thompson, 1994). Thompson convincingly argues that policymakers should move away from "clean break" perceptions about divorce and instead encourage new types of postdivorce relationships that are in children's best interests. Voluntary or perhaps mandatory mediation classes for parents who are applying for a divorce could enable parents to understand existing or potential co-parenting issues more fully. Mediation sessions, and other pre/post divorce intervention strategies, should encourage mothers to realize that promoting access and positive interaction between fathers and children is a worthy goal. In addition, these programs could help fathers understand the unique features of their particular circumstances as nonresident, single, and perhaps even stepfathers. In general, it is essential that a concerted effort be made to ensure that fathers feel connected to their children and maintain a feeling of obligation toward them--without relying exclusively on punitive strategies. Evaluation research is therefore needed to assess the program features of interventions, particularly ones with a two-parent focus, that are most effective in promoting responsible fathering and children's well-being.

Procreative responsibility and related activities. Another general issue focuses on how the act of procreation and men's subsequent paternal involvement are related to men's larger quest for meaning in their lives. The relationship between men's family roles and their roles in other spheres of life (e.g., work, school, religion, community) are reciprocal in many respects. One question is: how do different forms of paternal involvement promote male responsibility with respect to future fertility, labor force participation, and community involvement? This question is particularly relevant to socioeconomically disadvantaged men who are often marginalized from the paths to "success" typically deemed appropriate by the mainstream public. Most of these men are poorly educated and have limited job skills. Some are also shadowed by a history of criminal behavior and other self-destructive patterns. What do these men want out of life?

Ethnographic research hints that many desire the traditional formula for success as a man -- a stable job, the sense of belonging to a family, and a respected place in the community. Charles Ballard's innovative outreach program for fathers, established in 1982 in Cleveland, provides additional evidence that helping low-income fathers establish an emotional commitment with their children can provide an enormous incentive for men to develop their own human capital and community involvement (Levine and Pitt, 1995).

Perhaps the recent reforms to the AFDC program will enhance men's commitment to family roles and spark an increase in disadvantaged men's economic productivity and pro-social behavior. Research evaluating the effects of welfare reform should therefore consider how these innovations affect men's lives as fathers and in other spheres of life (e.g., education, work, community, church).

Father/mother differences. Do fathers differ from mothers in their family behavior during the course of a child's life? We have a better understanding of mothers because research has disproportionately focused attention on their intense involvement with their children in the early years of their lives. Fathers are often seen as mothers' helpers in these early years, but do their contributions and involvement in children's lives change as children grow up? Are there life course and developmental processes that require different levels and types of father involvement and support? Do these potential needs vary by the age and gender of children? These questions require us to consider men as individuals rather than as merely supports for mothers. We do not know what to expect from fathers in general, and estranged fathers in particular, as they age with their children. It may be the case that fathers play a poorly appreciated role as the adolescents transition to productive, independent adults. If so, fathers' disengagement early in a child's life must be evaluated in terms of its impact on children that may manifest later in their lives. These issues loom large in questions of custody and living arrangements subsequent to a divorce.

Family transitions and instability. One consequence of the instability of modern family life is that many fathers find themselves disengaged from their families and searching for a new family experience. Cherlin (1978) has suggested that we are in a cultural transition in which the plethora of emerging family types and situations has created a phenomena that could be described as an "incomplete institution." By this, he means that the changes in our culture have occurred so rapidly that the new emerging family forms have not had time to become "institutionalized." When family transitions (e.g., marriage, engagement, and death of spouse) are institutionalized, members are aware of norms to guide their behavior, ie., they have some sense of placement, the procedures to follow, and what to expect. In the case of remarriage, families are left to invent their own norms and transitional procedures. There are no well-defined "standards" one can easily adapt to the new situation. Consequently, individual family members must decide, with little guidance from cultural scripts, what the new parent should be called, how distance should be regulated, who should discipline and when, and how money should be transferred.

While men in remarriage situations are generally older and perhaps wiser as they prepare to establish a new family, their circumstances are complicated because they often have family obligations from a previous family. These obligations can collide with future fertility behavior in a subsequent marriage, cause role confusion, and create a sense of detachment from one or both families.

Also, if the new marriage or non-marital union involves a mother with children from a previous relationship, then a stepfather may be forced to negotiate a relationship with his stepchildren within a context marked by the presence of a living, active biological father. A stepfather must ask: How does forming a serious romantic union affect my new and pre-existing paternal roles? How should I treat my stepchildren relative to my biological ones? Where do my loyalties ultimately reside with respect to children?

In some ways, the law treats paternal involvement in remarriages as a secondary commitment. Biological fathers, irrespective of their new marital status and family circumstances, are expected to fulfill their child support obligations to their nonresident children. This often causes conflict within both families to the detriment of each. Also, the law is quite vague about stepfathers' relationships with stepchildren. Indeed, social and legal perceptions of stepfathers are still evolving and worthy of continued study, especially in light of current demographic patterns that suggest that a large percentage of children will at some point live with a stepfather figure.

Dual aspects of fatherhood. A final issue involves the competing ways in which fathers may influence children's lives. Fathers obviously may help protect children and teach them how to negotiate the difficult experiences they will encounter as they make the transition to adulthood. In stark contrast to these acceptable roles, fathers sometimes present a danger to their families and trigger their children's self-destructive behavior. Fathers have the potential to bring about real harm when they are physically or mentally abusive, or when they induce children to leave home before they are able to sustain themselves in a risky world.

How can we fashion laws and public policy to encourage the protective aspect of fathering while discouraging fathers' potentially harmful actions? Attentive and caring fathers bring safety and stability to the home, and communities filled with these types of fathers add an extra measure of security to children's lives. Unfortunately, modern public policy has tended to discourage men's participation in families which has lead to interpersonal instability within households and dangerous communities where concentrations of households without coresiding fathers are high. As we contemplate strategies for assisting high risk families, no one knows for sure how to arrive at the optimal balance between promoting fathers' positive participation in their children's lives and restraining their negative influences. This represents an important area where future research needs to inform policymaking.

The Role of Public Policy, Law, and Business Practices

How does government constrain and/or promote responsible fatherhood and positive paternal involvement? We highlight what we believe to be the most important ways that public policy, law, and business practices currently influence fathers' behavior, either positively or negatively. While social initiatives are relevant to fathers' paternal involvement in a wide range of situations, most deal with fathers who are either struggling because they are poor, or their paternal rights and obligations have become a focal point due to a divorce or a nonmarital birth. Obviously, many men are affected by both sets of circumstances.

Welfare reform. As mentioned previously, the provider role is a central construct in fathering. The structural transformation of the U.S. economy away from manufacturing and extractive industries to an information and service economy, coupled with the displacement of jobs from inner city areas, has disproportionately diminished the ability of economically disadvantaged fathers to provide for their families relative to what mothers can provide, especially when mothers are aided by government transfer programs. From a national policy perspective, many fathers have been marginalized in their role as provider and this has coincided with a marked increase in family instability. For example, government support programs that require mothers to remain single in order to receive benefits offer more attractive alternatives to the traditional notion of fathers as providers when the eligible men are poorly educated and have few work skills. In addition, administrative rules that require that fathers' child support be used to reimburse the government for welfare support provided to the mother and her children, and incentive programs that prod welfare mothers to target child support enforcement actions at fathers, have sometimes discouraged fathers from playing a more active role in their children's lives.

The advent of welfare reform provides an excellent opportunity to reconsider these policies and many states are experimenting with ways of realigning government policies to be more father-friendly. For example, many states have received permission to allow nonresident fathers of children on welfare to enter the JOBS program which currently provides the mothers of these children access to job training and education opportunities. By making these services available to fathers, policymakers hope to improve fathers' ability and desire to provide for their children. Some states (e.g. Virginia and Maryland) have embedded specific fatherhood programs in either child support and/or maternal health programs (Brenner, 1996).

"Man in the house" rules have also been a prominent feature of public housing and other types of welfare transfers. These rules have had the effect of producing large concentrations of households in which fathers are "around" but not living with their children. This may have the unfortunate effect of undermining fathers' roles and preventing fathers from being responsible fathers. Some states have started to abolish these policies. In Connecticut, for example, parents can receive public assistance when both parents live in the home. Moreover, the Hartford Housing Authority and the Child Support Enforcement program have joined to create a program giving nonresident fathers jobs related to the maintenance of a public housing project. These men also receive special help in resolving child support related issues. Programs such as these increase fathers' ability to contribute to their children's lives and encourages their positive involvement with them. Such efforts are expanding and must be evaluated rigorously with respect to all aspects of fathers' involvement as well as children's and families' well-being (Brenner, 1996).

Complexities of divorced families. The debates about fathers' degree of commitment and involvement with their children post-divorce are volatile and complex (Griswold, 1993; Marsiglio, forthcoming). One side of the debate focuses on the emotional crises many fathers experience because of the formal and informal impediments they must deal with as they struggle to maintain close relationships with their children after the dissolution of a romantic relationship--often marriage. For many men, the pain is real and long lasting. Despite the obvious anguish some fathers feel in this area, harsh critics of some efforts to expand nonresident fathers' rights present the other side of the debate in compelling fashion (Bertoia and Drakich, 1995). Among other points, they suggest that many fathers are less concerned about the day-to-day care of their children, the "moral labor" of parenthood, than they are in controlling their former partners. These critics warn against being duped by some men's "rhetoric of equality." As is often the case in debates such as these, there is an element of "truth" associated with each position. What must not be forgotten is that the processes that feed into this perplexing situation occur within a society that remains highly gendered.

Having alluded to the complexity of these issues, it is useful to point out that research has recently revealed a surprising array of structural barriers to father involvement in divorced families (Arditti and Kelly, 1994; Thompson, 1994 p. 39, 1 1). While it was previously thought that fathers in such families remained uninvolved because they simply didn't care about their children (deadbeat dads or runaway dads), research is accumulating that suggests that this portrayal is vastly oversimplified. In many instances, government policies (state and national) combine to deny fathers a more important -- and more beneficial -- role in their children's lives.

Joint custody. One specific post-divorce policy challenge is to deal with multi-household living environments that arise out of joint legal or legal/physical custody arrangements. The advent of controversial joint custody arrangements has prompted researchers to consider how these arrangements affect post-divorce parenting; their research has produced mixed results. Interestingly, Maccoby and Mnookin's (1992) research on California families, and Seltzer's noncustodial fathers' income, did not find that joint legal custody was related to child support, visitation, and child-related decision-making (see also Fox and Kelly, 1995). However, Maccoby and Mnookin did find that joint legal/physical custody was related to positive post-divorce parenting. Some recent research also shows that joint legal custody appears to be associated with more positive forms of paternal involvement such as child support payments than with parental conflict (Seltzer, 1996). Braver's (1994) research with families in Arizona has shown that when joint custody is awarded father involvement is at very high levels. Moreover, the U.S. Census Bureau has found that 97% of joint custody fathers pay child support, as opposed to about a 2/3 rate for the population as a whole (US Bureau of Census, 1991; Braver, 1996).

Fathers without custody. While some men want and gain either joint or sole custody, some observers contend that our current court system mitigates toward disproportionate custody awards to mothers (Braver et al., 1993). Braver and his colleagues found that fathers indicate strong preferences (over 70%) for a joint legal custody award, and only a distinct minority (11%) preferred the mother to have sole legal custody. However, in 77% of these families the ultimate award was indeed for sole maternal legal custody. Warshak (1988) has made compelling data-based arguments that joint custody is in the best interests of children in many cases.

Why fathers so seldom receive the full custody or joint custody they say they would prefer is a matter of some dispute. Weitzman (1984), for example, reports that mothers believe that the fathers don't really want custody, they just raise the possibility as a threat or a bargaining chip, and relinquish their bid when they wring financial concessions. Others (Levy, 1990) argue that attorneys discourage fathers from pursuing their preferences because of a biased legal system, and usually only those with unassailable cases, such as those involving the mother's severe mental illness, persist.

Father-child visitation. Some divorced fathers without custody don't receive the legal right to visit their children and this, of course, can be viewed as a severe structural barrier. In many cases, there are clearly legitimate reasons for denying fathers access to their children (e.g., history of abuse). Although fathers are seldom denied legal visitation rights, greatly restricted rights are far more common. This is particularly true when allegations of spouse or child abuse are made. One difficult policy issue is deciding how government programs should balance the safety of mothers and children when bona fide violence is present, while at the same time not confusing an allegation with proof of abuse. While strong incentives for spurious claims of abuse clearly exist, there are few disincentives for such claims.

The most frequent visitation problem involves fathers who are legally entitled to spend time with their children, but are either completely or sporadically denied access by the mother. According to several studies (*cf* Braver et al, 1993), this occurs in between 25% and 40% of divorced families. There can be little dispute that there is minimal enforcement of visitation rights, especially in comparison to the vast legal machinery that exists to enforce non-payment of child support. We are not proposing that a federal Office of Visitation Enforcement be created with a parallel budget. However, the imbalance in efforts to protect visitation rights vs. the enforcement of child support obligations no doubt conveys a message to fathers that the "system" doesn't care about them nor about whether they are active in their children's lives.

Pilot research is currently underway to explore the feasibility and effectiveness of visitation enforcement (Braver et al., 1993). The Dads For Life Program currently being conducted and evaluated in the Phoenix area attempts to teach divorced fathers how to be a positive force in their children's lives irrespective of the constraints a divorce may impose on their family relationships. Preliminary reports from participating fathers, mothers and children suggest the program is having profound and apparently long-lasting benefits. Perhaps the best remedy is educating mothers on how healthy father-child relationships can benefit children -- as well as the mother herself.

Mothers as gatekeepers. As the previous discussion suggests, mothers often serve as gatekeepers in divorced families (and in informal unions leading to nonmarital births). This can hamper fathers' motivation to remain involved. In the most definitive research, using a representative sample, and a longitudinal design, Braver et al. (1993) found that the factor best predicting fathers' long term involvement was the fathers' feeling "parentally enfranchised." Many fathers felt that issues related to their divorce, especially concerns about their children, were out of their control. When divorced fathers felt they shared control with the mother over child rearing issues they were less likely to feel alienated. When fathers did not feel they shared parental control, they felt as if their children were not theirs anymore. Many reported that they felt the society, the legal system, and their ex-wives had conspired to fracture their connection with their children while expecting them to fulfill their financial obligations as fathers.

Geographic relocation. A barrier of another kind is when one divorced parent moves to another geographic area. Clearly, if the child stays with the mother, fathers can not retain the same day-to-day involvement that is possible when both parents remain in the same location. This type of relocation is also associated with a significant decrease in child support payments and enforcement is far more difficult. This hotly debated area finds feminists arguing that no restrictions should be placed on mothers' (or fathers') mobility, while opponents argue that custodial parents who want to relocate and take their child should be forced to demonstrate that such a move is necessary, for either health or employment reasons. Additional research on the consequences of relocation on all involved parties is needed to inform policy in this area.

Child support enforcement. Child support enforcement is related to circumstances stemming from either divorce or a nonmarital birth. It also is a difficult public policy area because it stresses a strict financial discipline on nonresident parents who are usually fathers.

An important component of child support enforcement is paternity establishment. States are using a variety of methods to establish paternity in cases of nonmarital births as soon after the birth as possible. While this is done to maximize the ability of the state to enforce child support claims against the father, this procedure may encourage fathers to develop a stronger commitment to their children. To the extent this objective is achieved, fathers may be more involved in their children's lives.

One of the key issues associated with child support enforcement policy is the extent to which the resources of the program will be used to mediate conflicts arising over visitation. At least one state, Utah, will suspend a mother's drivers license if she refuses to cooperate in allowing visitation access. Policymakers face a major challenge in finding an optimal child support enforcement policy that maximizes the financial commitment of nonresident fathers while ensuring that fathers have ample opportunity to spend quality time with their children.

Experience with attempts to enforce child support obligations has revealed that fathers' visitation patterns are related to child support payment, and greater contact may be related to better outcomes for children (Zill and Nord, 1996; Argys, 1996). While researchers are uncertain about the complex causal direction of these statistical associations, the apparent relationship between father-child contact and child support payments should serve as an incentive for researchers to examine these issues more carefully.

Health insurance. Health insurance for children is a major consideration for poor families. The advent of a service economy has meant that many fathers must work more than one job, many of which are without health insurance benefits. Medicaid, like AFDC welfare, has posed problems for fathers in the past because these programs were formally linked. Medicaid will not pay for any Prepared Childbirth training for fathers and this may hinder the bonding between fathers, mothers, and children in poor families which are already often very fragile. The beginning of welfare reform offers an opportunity to consider ways in which health insurance can be provided to poor families without discouraging fathers from co-residing with their children and/or being responsible fathers (Staff, 1995).

Early childhood education programs. Early childhood education programs including developmental day care, Head start, and preschool programs have largely ignored how fathers might be connected to their children in these formative years. While these early childhood programs were initially developed to assist mothers, ongoing experiments such as Early Head Start are examining ways to connect fathers to their children (Levine, Murphy, and Wilson, 1993).

Criminal justice system. Officials within the criminal justice system have taken notice that many prisoners are fathers and that there is a substantial intergenerational transmission of experience about the subculture of crime. This has stimulated a new awareness that intervention programs that help imprisoned fathers be better fathers might break the intergenerational transmission of institutionalization. Some states (e.g., Louisiana and California) are experimenting with intervention programs in the juvenile justice system and states such as California, Illinois, Arkansas, Delaware, and New Jersey are doing the same in adult corrections facilities (Staff, 1997). Policymakers are thus faced with the prospects of figuring out innovative ways of promoting styles of fathering that will break the intergenerational transmission of anti-social behavior.

Workplace barriers. The debate about how to balance work and family roles has generally focused on women, because women have traditionally taken the primary responsibility for child rearing while participating in the labor market as secondary earners; men have been considered the family breadwinner. Debates in recent years, however, have begun to incorporate discussions about the "new" father who is expected to be more involved with children (Hyde et al., 1993). For these reasons, a discussion about workplace barriers to participation in family life is important for both men and women.

Parental leave. In 1993 President Clinton signed the Family and Medical Leave Act (FMLA) that allowed parents to take up to six weeks of unpaid leave to care for a newborn or adopted child or another family member who is sick. The federal law further restricted these benefits to those working in establishments with 50 or more employees, employed for a full year, and working at least 1,250 hours during the year prior to taking the leave. Before the passage of FMLA, 11 states had similar family leave policies (Klerman and Liebowitz, 1997).

Paid parental leave in the U.S. is fairly rare. In 1993 only 3% of medium and large establishments and 1% of small establishments offered parental leave (Blau, Ferber, and Winkler, forthcoming). Other countries have much more generous family leave provisions. For example, parents in Sweden can take up to a total of 15 months in paid leave to be shared between the mother and father.

Despite the availability of these benefits, fathers are much less likely to take parental leave, or they take leave for much shorter durations than do mothers. In the U.S. it has been estimated that fathers take about five days of leave when their child is born. The good news is that 91% of fathers took at least some leave (Hyde, Essex, and Horton, 1993). When fathers take time off from work, they are much more likely to use paid vacation or sick leave than parental leave which is most often unpaid.

The availability of parental leave in the U.S. is a fairly recent phenomenon. Comparisons with studies of parental leave in Sweden provide us with what is likely to be a "upper bound" estimate of how U.S. fathers,'paternal leave tendencies might change over time. Haas and Hwang (1995) report that in 1974, the first year that parental leave was available, only 3% of Swedish fathers took parental leave. Over time that number increased gradually, and by 1994 about one-half of fathers took parental leave. Even in Sweden, however, fathers of children born in 1989 took far fewer days of leave than mothers (43 vs. 60) (Haas, 1993). Two reasons for this difference are 1) the importance and prevalence of breast feeding during the first year of a child's life, and 2) the fact that men generally earn more than women. Thus, unless income replacement is 100%, the income loss to the family is greater when men take a leave and is likely to act as a disincentive for fathers to take leave at the same rate as do mothers.

Surveys of workers and employers also find that fathers are concerned that taking parental leave will reduce their chances for promotions and raises (Hyde, Essex, and Horton, 1993). Employers state that those fears may be justified. Although women of child-bearing age have traditionally faced these same prejudices, some employers are beginning to make allowances for family responsibilities because so many women are now in the labor force. The idea of men taking paternal leave, on the other hand, is still largely viewed as unacceptable in the corporate culture (Hass and Hwang, 1993).

Jobs. The structure of jobs and workplace policies may facilitate or hinder working parents' ability to spend time with their children. The key to parental care when both parents work is flexible hours, including flextime, irregular work schedules, part-time employment, job sharing, and home based work. In addition, the parental leave policies mentioned above allow a parent to be at home full time during critical periods in a child's life without the fear of losing a job or losing seniority in that job.

Flexible hours. One measure of co-parenting fathers' involvement with their children is the frequency that they provide child care while the mother works. For married couples with children under age 15, it has been estimated that about 13% of fathers serve as the primary child care provider when the mother works outside the home (O'Connell, 1993). Most of these fathers are employed. Studies have found that fathers are more likely to provide this child care if 1) the mother works part-time or a non-standard shift or 2) the father works part-time or a non-standard shift (Casper and McConnell, 1996; Averett, Gennetian and Peters, 1997). Part-time or non-standard shift work allows parents to work at different times from each other and for each parent to provide some care while the other works. Presser (1995) estimates that 54% of men and 56% of women work a fixed day schedule, Monday through Friday only. Presser has also found that women are more likely to respond to family responsibilities by choosing non-standard work schedules. Specifically, 27% percent of women who had children under age 14 reported better child care as the reason for working a non-standard shift compared to almost 5% of men (Presser, 1995).

Part-time work. Part-time work is also more prevalent for women than for men. In 1995, 34% of women, but only 18% of men worked part-time (Blau, Ferber, and Winkler, forthcoming). Although part-time work has the advantage of allowing parents to share child care and spend more time with the family, it also has costs in the form of lower earnings, lower pay per hour, fewer opportunities for promotion and fewer benefits such as health care and retirement savings plans.

CONSTRUCTS USED IN DATA COLLECTION

Another way we can begin to understand father involvement is to examine how survey researchers have measured this construct in large scale data sets such as the National Survey of Families and Households (NSFH), Panel Study of Income Dynamics (PSID), National Longitudinal Survey of Youth (NLSY), High School and Beyond (HSB), the National Survey of Children (NSC), and the forthcoming Adolescent Health Survey (Add Health) from the University of North Carolina Population Center. In this section of the report, we review what we found when we canvassed these and other dat.

sets and categorized the types of measures that were included. The collection of massive data sets is an obviously expensive and time consuming undertaking. Therefore, the constructs that survive that scrutiny are deemed essential to the data collection effort. By performing an audit on some of these larger data sets we are able to determine how fatherhood issues have been measured and, therefore, what many researchers deem significant. This exercise contributes to the conversation about what information still needs to be collected about father involvement in large-scale data sets, most of which are longitudinal in nature.

Our search was guided by the categories, topics, and domains suggested earlier in this report where we discussed conceptualizations of father involvement. At the most basic level, we appraised each data set with regard to general father presence/absence issues. Next, in each of the 14 data sets, we looked for any of Palkovitz's (1997) suggested categories of involvement. Table 1 is a distillation of what was found in the data sets. Further, Tables 4 through 15 give examples drawn from particular data sets of how questions were asked in reference to an involvement category. (see Appendix J)

Data Sets. We chose data sets based on two criteria. First, we selected those which featured family-related variables (e.g., Add Health, NSFH, NSC). Second, we chose data sets if they represented an area of study for which information about fathers would seemingly be important (e.g., Baltimore Study of Unplanned Teen Pregnancy, High School and Beyond). This selection process is in no way meant to be exhaustive or even representative of secondary data sets. Instead, our purpose is to demonstrate the kind of father-related research variables that have been used to date.

Findings. We provide a short analysis of what we found when we examined father measures. First, as an historical note, recent data sets that have been collected (or are being collected, e.g., Add Health, PSID Supplement, NSFH II) have many more items that can be construed as fitting into the father involvement categories. Surprisingly, some of the more widely used data sets such as the NLSY, have very few father related variables. The HSB, for example, has practically nothing a researcher can use to consider the effect of differing levels of father involvement on school performance. Nevertheless, we conclude that many researchers are beginning to attend to father involvement issues. Of particular note is the recent extensive work done on the PSID. In the past, this survey has focused heavily on income dynamics as its name suggests. New data are being collected (1997) using this supplement and the resulting information should provide a wealth of opportunities to research father involvement issues.

Also, in the recent panel wave of the NSFH, much more attention was paid to involvement categories like *activities, emotional support, and monitoring*. In the new Add Health Survey, a specific effort has been made to assess quality and substance of communication between fathers and teen children. Additionally, these researchers have paid careful attention to other father involvement variables like teaching, monitoring, availability, and levels of affection. Unlike several of the other data sets, the Add Health also examines in more detail the types of shared activities that fathers and children experience. Our guess is that this data set will be used extensively by researchers interested in father involvement issues.

We recognize that organizers of large data sets often include measures for the parents who are in or out of the immediate environment. Some go to great lengths to assess where that parent is and what his/her contact is with the family. However, the usual pattern is to ascertain a general dichotomous reading of family structure (i.e., is the father there or not) and then to let his absence stand as a token marker variable. Again, this deficit model of research suggests a simple two-variable linear connection that father absence leads to poorer family well-being.

None of the data sets began with the notion of examining a father involvement construct central to ongoing family processes. However, there are some data sets (e.g., Add Health, NSFH, PSID, and NSC) that have a few scattered family process variables in them. These usually reflect an effort to collect some information about monitoring, communication, or affection. Family process variables such as flexibility and distance regulation have not been assessed in these types of data collection efforts. Additionally, very few of the data sets attempt to collect information from multiple respondents within the family. Therefore, even when a family process measure happens to be included, it is usually appraised from only one person's perspective. As such, the latent family process constructs remain poorly measured and under-researched.

The new supplement to the PSID offers researchers a better look at fatherhood issues by using a diary system. The respondents are given a time diary in which they are to record time use and some interactions with family members. One challenge facing large data collection efforts is how to move away from having data about attitudes, beliefs, and perceptions that are reported from one respondent. By using video recordings, time diaries, and other observational techniques, researchers can begin to respond to the common critique that assessing marker-like variables from one person's perception tells very little about the inner dynamics of a family.

We also learn from a perusal of these data sets that only one or two items are typically used to measure a construct. For example, several data sets have some measure of monitoring. Often, however, there is only one item that could be considered a monitoring question. The richness and texture of that construct is therefore compromised. It is understandable that they are limited in this way given the expensive nature of data collection and that these collection efforts were not directly targeting fatherhood issues.

The most common categories of questions that have been covered (at least superficially) in this sampling of surveys are questions about teaching, monitoring, caregiving, availability, and affection. Also, several of the surveys focused on the negative involvement aspects of fathering and proposed some measure of conflict and harsh punishment.

We hasten to add, however, that in some cases such as measures of communication, the smattering of questions asked ranges from in-depth exchanges about sexual issues to frequency of letters received from fathers during the year. This leads to an important lesson we can gain from this exercise. There is apparently very little consensus on how these constructs are defined and operationalized from one researcher to next. The secondary data researcher who employs these data sets must make do with the items that were chosen. One outcome of this rather chaotic approach is that it is practically impossible for researchers to compare findings across data sets. Only on rare occasions (such as measures of depression) is there a consensus on how to measure an idea.

The least common father involvement categories that were measured were sharing interest, protection, emotional support, child maintenance, and other family processes. Virtually no studies have ventured into the realm of ritualization, distance regulation, and flexibility for example. Surprisingly, very few ask questions about protection which is a fathering stereotype that is almost universal. Also, it is surprising that few have asked fathers about what activities they wish to or do share with their children (NSFH is one exception on the latter point). This is particularly odd given that many researchers have characterized fathers as being notably interested in play activities.

In sum, recent data collection organizers (e.g., Add Health, PSID, NSFH) are to be applauded for including survey questions that help us better understand father involvement as a complex and intricate construct. They should also be recognized for moving away from the sterile environment of presence/absence questions. However, much work is yet needed. As more conceptual work proceeds and researchers/policymakers begin to agree on central constructs, we will need to wrestle with designing and using measures that provide the broadest picture of father involvement. Ideally, these measures should also appeal to a research community with diverse disciplinary interests.

Summary and Applications

We began this report by discussing our preference for using the term "social fatherhood" to underscore our perspective on conceptualizing fatherhood issues. Thus, we are not merely interested in men who are biological progenitors, although they clearly represent the most important group of men we consider. Being a social father involves a diverse set of ways "fathers" can be involved in their children's lives that may or may not be tied to biological paternity.

An understanding of several general issues is essential as researchers and policymakers approach the task of conceptualizing social fatherhood and paternal involvement. Our broad conceptualization of these issues is informed by four overarching themes:

- First, one needs to consider *family structure* issues in light of recent sociodemographic changes in family composition.
- Next, by attending to *cultural diversity* we direct our attention to divergent ethnic and cultural patterns that shape fathers' parenting experiences.
- *Gender*, as a primary organizing principle of social life, is an important consideration at various levels when examining men's and women's social parenting roles. Gender issues continue to shape the social context for parenting as well as how males and females view and experience their parenting roles. In particular, gendered parenting exists to the extent that parents' involvement in their children's lives is affected by their use of different parenting paradigms which may include potentially different skills, interests, motivations, strategies, and resources.
- The *developmental trajectories* perspective reminds us that fathers, mothers, and children have different needs, goals, and interests which they express at various points throughout their overlapping life courses.

Domains of fathering. Drawing on the thematic framework noted above, we emphasize an inclusive approach to paternal involvement that emphasizes the value of considering cognitive, affective, and behavioral ways that fathers can be involved with their children. Thus, our conceptualization of paternal involvement incorporates far more than simply fathers' hands-on parenting experiences.

Resources. A particularly important feature of our definition of social father is an assessment of what resources he shares with the assembled family. This is not to imply that mothers are somehow deficient or cannot bring similar resources to the family. However, it is precarious to assume that resource contributions will necessarily be equal in amount or type. We suggest that in most cases there will be differences in resources (for better or worse) and that research needs to attend to resource type, amount shared, and mechanisms for transference. To understand the conceptualization of social father it is necessary to delineate these resources *vis a vis* the mother and others who may be contributing. From Coleman (1992) we learn that the resources fathers provide for their children include:

- ***Human capital*** (e.g., skills, knowledge, and traits that foster achievement in U.S. society)
- ***Financial capital*** (e.g., money, goods, and experiences purchased with income)
- ***Social capital*** (e.g., family and community relations that benefit children's cognitive and social development)

In this report, we focus primarily on aspects of fathers' economic provider role and the contributions of social capital as expressed through coparental and father-child relationships. More research on how all three types of capital influence childrens' well-being is essential.

Generativity. We also suggest that conceptualizations of social fatherhood should be sensitive to the *generative fathering* perspective. Researchers are likely to make better contributions to this literature when they view fathering as an emergent process that accentuates men's personal growth vis-a-vis their children's well-being. In contrast, a deficit model suggests that the topic of fathering be approached from the position of what fathers do not do or what happens when they are absent.

Responsible fathering. A conceptualization of responsible fathering needs to recognize men *holistically as procreative beings* (Marsiglio, forthcoming). We stress the importance of recognizing the continuity of men's roles beginning with their procreative decision-making choices prior to conception, moving on to the pregnancy process itself, and culminating in fathers' involvement with their children. We therefore follow Levine and Pitt's (1995) lead who propose that the "responsible man" does not participate in the conception process until he is prepared emotionally and financially to support his child, establishes legal paternity when a child is conceived, shares in the continued emotional and physical care of his child, and shares in the continuing financial support of his child, from pregnancy onwards. Policies and/or research agendas about fathers in families will be better served when the above starting points are recognized and highlighted.

Paternal involvement. Fathers' involvement with their children includes a diverse array of potentially overlapping dimensions. Furthermore, vast individual and subcultural differences exist among persons' definitions and willingness/ability to invest in these dimensions. Men committed to being "good fathers" may perform quite differently, with the same performances sometimes being viewed as successful or unsuccessful depending on the implicit definitions held by those making the evaluations. A primary purpose of this report is to further develop an understanding of the factors that lead to positive forms of fathers' involvement with their children. Some of the essential elements of paternal involvement include:

- ***Nurturing and caregiving:*** This is an often recognized aspect of fatherhood but there is disagreement about the importance of this dimension. Its relevance and effectiveness may vary depending on the age and gender of the children.

- ***Moral and ethical guidance:*** While this aspect of fatherhood is often viewed as central to what fathers should do for their children, in reality, most such guidance or socialization within the family is performed by mothers. The influence of paternal guidance may be indirectly mediated by children's identification with and imitation of their fathers, regardless of fathers' own efforts.

- ***Emotional, practical, and psychosocial support of female partners*** (i.e., mothers or stepmothers of men's children): This refers to aspects of social capital derived from coparental relations. That is, when the relationship is stronger the transmission of social capital will be more likely to occur.

- ***Economic provisioning or breadwinning:*** This dimension of fatherhood is probably viewed by many as the central aspect to fatherhood.

- ***Time use.*** A large number of studies have examined how much time fathers spend with their children and what sorts of activities occupy that time. While there are numerous problems with father/child time use data, the extant research in this area suggests the following:

- ***Quantifying*** the time involved is difficult. The anxiety, worry, and contingency planning that comprise parental responsibility often occur when the parent is ostensibly doing something else.

- Problems of ***measurement inconsistency*** remain. When researchers use Lamb et al.'s (1987) three-fold typology of involvement (i.e., engagement, accessability, and responsibility) they usually do so retrospectively using results of independent studies conducted years earlier which were never collected with those ideas in mind.

- Fathers do not appear to be spending appreciably more ***time interacting*** with their children when mothers are employed; rather the proportions increase because mothers do less interacting (because they are working outside the home more). Thus, fathers are proportionately more involved when mothers are employed, even though the depth of their involvement in absolute terms, does not change to any meaningful extent.

- ***Maternal employment*** has probably led to changes in the types of activities in which fathers engage and new studies may show increases in the extent of paternal responsibility.

- Time diary studies have shown that the amount of time fathers spend with their children is associated with ***socioeconomic class*** (lower class fathers tend to spend more time with their children), age (fathers spend more time with younger than with older children), and gender (fathers spend more time with boys than with girls).

New work on conceptualizing paternal involvement

- Researchers have recently devoted more attention to developing new ways of *conceptualizing and measuring involvement.* Palkovitz (1997) provides an expanded view of paternal involvement from a generative fathering perspective.

  His conceptualization expands Lamb's earlier typology and he elaborates on a diverse set of ways fathers can be involved with their children, including economic provisioning. In addition to highlighting the behavioral domain of paternal involvement, this framework accentuates the cognitive (e.g., planning) and affective domains as well. Palkovitz also suggests that a complete conceptualization of paternal involvement needs to take into account a series of co-occurring continua (time invested, observability, salience, degree of involvement, directness, proximity, appropriateness).

Economic provider. In this report, we focus specific attention on fathers' role of economic provider because it is fundamental to most persons' definition of fatherhood, it is a critical form of paternal involvement, and it is associated with important public policy issues. Provisioning is meant to include the supplying of money for food, clothing, shelter and other consumption items. The following points were made with regard to provisioning behavior:

- Economic resources matter because *economic instability* (e.g., unstable work, income loss, etc.) can lead to marital conflict which itself has negative consequences for children.

- Fathers who provide more money to the family often do so at the *cost of spending less time* with their families.

- Evidence suggests that mothers spend money in ways that are more *child friendly* than do fathers.

- Many nonresident fathers do not pay *formal child support*. In one recent study it was reported that about half of the nonresident fathers (51%) who owed child support paid the full amount, 24% paid a partial amount, and the remaining 25% paid nothing.

- A relatively new concept in the provisioning literature suggests that nonresident fathers may provide heretofore unreported support in the form of *informal monetary or non-monetary contributions* to the mother. Indeed, one study found that fathers assumed more financial responsibility for their children informally than through the formal child support system.

- Generally, studies find that child support has positive effects on children's *cognitive achievement and educational attainment* that cannot be accounted for solely by the financial contribution of child support. This suggests that when fathers contribute and transfer capital to their children the act of transference is more powerful than when the same resources come from non-paternal sources.

- Very little is known about the economic contributions to the household and to children of *stepfathers or male partners in cohabiting relationships*.

Motivation. The motivations that bear on a man's decision to be a father and to fulfill the associated roles in a responsible way appear to be shaped by cultural images of fatherhood represented in the media and other outlets, as well as men's socio-cultural background, their current social circumstances, and their earlier experiences, particularly the behavior of their own parents. Some primary motivations that were mentioned were 1) the experience of caring for and raising children, 2) an opportunity to strengthen their bond with their romantic partners, 3) to ensure that they are not lonely or financially vulnerable in their later years of life, and 4) to feel more connected to their extended family and/or friends. We also suggested that there is a growing thread of research in which sociobiologists emphasize that both men and women strive to maximize the representation of their genes in future generations. Other motivations to parent were suggested as follows:

- The *generativity* theme contends that some fathers are motivated to be involved with their children because such involvement is related to healthy adult development.

- Some men are motivated by *recollections* of the fathering men experienced as children as well as their interpretation of other men's fathering behaviors in specific social situations.

- Some are motivated by a desire to seek or *enhance a level of maturity* and receive a confirmation of social status.

- A *commitment model* highlights the notion that identities are negotiated within the context of structured role relationships. As such, a key feature of motivation is that fathers' commitment to being a particular type of man, partner, and father may affect their desire to be involved with their children in particular ways.

We summarized our review of paternal involvement by noting that individual, interactional, and macro/meso level factors combine to shape fathers' motivations and opportunities to express themselves as fathers toward their children in particular ways.

The role of *motivation* in the search for a conceptualization of men's parenting role is complex and rich with research opportunity. Very little is known about why men choose to parent and how those choices vary by age, ethnic, cultural, or class background. Further, we know little about why some men are more motivated than others to magnify particular ways of involving themselves in their children's lives.

Family process. Family process informs us about how family members think, feel, and act toward each other and is measured by assessing the shared relationships of multiple family members. This level of analysis is interactional and the focus is the family group instead of individual or macro-levels. One application that helps us understand how the quality of family process operates can be found in the work of Coleman. He posited that the level of social capital available by the father that *could* be transmitted to the child can only be transferred when the quality of the dyadic relationships are of higher capacity. Such ideas have prodded family researchers to consider the inner dynamics of families and their impact on children's well-being.

There are several important family process constructs that have recently emerged as seminal descriptors of those inner dynamics, including *distance regulation, flexibility, support, supervision/ monitoring, affection, communication, and ritualization.* We focused on three of these constructs to illustrate how parent interaction can facilitate children's well-being. A main point of that discussion was that very little of the family process research has explored how the parent's gender may affect these processes. Further, there is evidence to suggest that when father's and mother's contribution to the family interactional process is examined separately the differences predict in discrete ways, and tell us more about family outcomes than when research only examines the process from one parent's point of view or combines the perspectives.

- ***Distance regulation.*** Distance regulation contains two primary dimensions: tolerance for individuality and the parent's tolerance for intimacy.

Effective distance regulation influences the child's ability to make a successful and effective transition to a post-adolescent status. Families with distance regulation problems (for fathers and mothers) result in adolescent samples displaying a variety of pathological indicators, including depressive disorders, disruptive behavior and obsessive-compulsive disorders, eating disorders, and aggressive and non-aggressive attention deficit hyperactivity disorders. These patterns are also found among more outpatient-oriented samples deemed "at risk" of developing psychopathological conditions. Also, the distance regulation style of the father may have a greater impact on pre-teen and teenage children than the mother's style. It has also been found that the influence of the father's distance regulation behaviors is a good predictor of adolescent outcomes such as behavior problems and ease of on-time developmental transitions.

- ***Flexibility*** is defined as the degree to which members are able to change the power structure, relationship rules, and roles in relation to developmental and/or situational stressors. Research on flexibility and children's well-being has shown that better levels of flexibility exist when there are two parents present. Better flexibility is linked to lower levels of destructive parent-child interaction, the absence of a juvenile offender in the home, lower reports of sexually abusive behavior, decreased levels of psychopathology, and less chemical dependence.

- ***Parental Support*** is defined as general support, physical affection, acceptance, or companionship, and includes the communication of warmth, affection, rapport, and feelings of being valued. Parental support is viewed as an expression of the "loving" dimension of relationships in families. Research shows that parental support often contributes to moral internalization and conformity to parent's expectations, autonomy and self-esteem, a sense of connectedness, and if absent may lead to feelings of separation, expressions of hostility and aggression, diminished self-esteem, as well as antisocial and risk behavior. As was mentioned above, while little research has focused on fathers' role in promoting support, research has shown that adolescents become more self-directed when parents (especially fathers) promote a family environment in which the teen can seek advice, experience validation, and realize a sense of security. Individual autonomy can best be fostered through mutuality and support.

Future research clearly needs to spotlight fathers' roles in family processes. Researchers are beginning to move away from the assumption that men's and women's contribution to family dynamics is similar with regard to such topics as distance regulation and/or support. However, we know very little about how each gender (within different family structure types or cultures) approaches these strategic interactional tasks.

Policy issues. For public policy to be effective in promoting responsible fathering, it will need to be proactive, theoretically informed, and research based. Past policy directives with regard to fathering have primarily focused on punishing and/or coercing fathers when they do not support their families or when they are violent. It is critical that family policy move beyond that two-pronged focus and begin to consider how to encourage fathers' positive participation in family life.

A new assumption is awaking our interest in this arena. That is, we are learning that many fathers want to be responsible and involved. However, unintended barriers created by well-meaning policies, cultural stereotypes, and work place factors have limited the ability and motivation of men to take a more proactive posture toward their family commitments. Furthermore, it is becoming clear that encouraging fathers to attend to these commitments (especially where children's welfare is concerned) has high payoff in the long and short term. When families are stronger (accomplished in part through better and more positive father involvement) they place a smaller financial burden on local, state, and federal governments. Two trends related to fathers' experiences are particularly significant for public policy:

- First, while the proportion of fathers who are interested in playing a more active role in their children's lives has been increasing, the proportion of fathers who are disengaging (or are pushed) themselves from their paternal responsibilities has also been rising (Furstenberg, 1988).

- Second, there is an evolving diversity and dynamic nature to men's life course patterns and paternal roles as they find themselves in step, blended, cohabiting, and fictive families. The increased frequency of these diverse family types require men (and others) to visualize and negotiate new roles. To the extent that social policy is constructed through the lens of the traditional nuclear family model, new forms of responsible fathering by biological fathers or stepfathers are likely to be constrained.

As the above trends are considered, policymakers need to remember that the decisions about parenting are usually made within the context of an adult dyadic relationship (i.e., husband and wife). These trends have drawn observers' attention to obvious questions: How can fathers develop and sustain a relationship with their children in spite of their severed romantic ties to the mother of their children? Additionally, are men capable of rekindling a relationship with their children after it has waned? Can fathers establish relationships with their children even if they failed to do so when their children were much younger?

During divorce processes. With regard to the process of divorce, we suggested that continued positive father interaction is important to more favorable outcomes for children. Consequently, we suggested that:

- Policymakers should give greater attention to policies that would provide couples with easy access to mediation during their divorce negotiations as well as subsequently when they may need to address new family situations.

- Policymakers should move away from "clean break" perceptions about divorce and instead encourage new types of postdivorce relationships that are in children's best interests.

- Mediation classes for parents who are applying for a divorce could enable parents to understand existing or potential coparenting issues more fully.

- Mediation sessions, and other pre/post divorce intervention strategies, should encourage mothers to realize that promoting access and positive interaction between fathers and children is a worthy goal.

- Programs could help fathers understand the unique features of their particular circumstances as nonresident, single, and perhaps even stepfathers.

- Evaluation research is needed to assess the program features of divorce interventions, particularly ones with a two-parent focus, that are most effective in promoting responsible fathering and children's well-being following dissolution.

Procreative responsibility. With regard to procreative responsibility, researchers and policymakers need to discover how different forms of paternal involvement, particularly fathers' involvement in their children's lives, promote male responsibility with respect to future fertility, labor force participation, and community involvement. This question is particularly relevant to men who are often marginalized from the typical paths to "success."

Mother/father difference. Another policy issue centers on father/mother differences. Do fathers differ from mothers in their family behavior during the course of a child's life? The implication is that fathers are often seen as mothers' helpers in the child's early years, but do their contributions and involvement in children's lives change as children grow up? Are there life course and developmental processes that require different levels and types of father involvement and support? Do these potential needs vary by the age and gender of children? Perhaps fathers play a poorly appreciated role during adolescents' critical transitions. If so, fathers' disengagement early in a child's life must be evaluated in terms of its impact on children that may manifest later in their lives.

Incomplete institutions. Many of the transitions families face today occur within "incomplete institutions." Our culture has changed so rapidly that the new emerging family forms have not had time to become "institutionalized." For example, in the case of remarriage, families are left to invent their own transitional procedures. There are no well-defined "standards" one can easily adapt to the new situation. As a result, individual family members must decide, with little guidance from cultural scripts, what the new parent should be called, how distance should be regulated, who should discipline and when, and how money should be transferred. Policy ideals need to be sensitive to these fundamental changes in our society and assist families as they try to adjust during these critical transitions.

Duality. Fathers also experience a duality in their role as parent. First, fathers may help protect and provide for their children while teaching them how to negotiate the difficult experiences they will encounter as they make the transition to adulthood. However, there can be a darker side to fathers' presence in their children's lives. Fathers sometimes present a danger to their families and trigger their children's self-destructive behavior. Fathers have the potential to bring about real harm when they are physically or mentally abusive, or when they induce children to leave home before they are able to sustain themselves in a risky world. Attempting to balance these sometimes competing realities is an important policymaking dilemma that should be informed by additional research.

Public policy. In this report we highlighted several proactive roles that public policy, law, and the private sector can develop to assist fathers to engage in responsible fathering.

- Policymakers must be sensitive to structural changes in the U.S. economy that have disproportionately lessened economically disadvantaged fathers' ability to provide for their families relative to what mothers can provide, especially when mothers are aided by government transfer programs.

- For example, "man in the house" rules need to be re-examined. These rules, which have required women to remain single in order to receive certain government benefits, have had the effect of producing large concentrations of households in which fathers are "around" but not living with their children. This may have the unfortunate effect of undermining fathers' roles and preventing fathers from being responsible fathers. Some states have started to abolish these policies.

- Policymakers should re-evaluate the latent consequences of administrative rules that require fathers' child support to be used to reimburse the government for welfare support provided to the mother and her children. These rules have helped foster a climate of underground fatherhood while making it difficult for some fathers to be more involved with their children.

- In a similar vein, care needs to be exercised when developing incentive programs that prod welfare mothers to target child support enforcement actions at fathers. Such programs have sometimes discouraged fathers from developing a sense of commitment to their children.

- State and federal programs can become more father-friendly by allowing nonresident fathers of children on welfare to enter the JOBS program which currently provides the mothers of these children access to job training and education opportunities.

- States can be encouraged to embed specific fatherhood programs in either child support and/or maternal health programs.

Divorce and fathers. Policymakers should heighten their understanding of the complexities that characterize divorced families. The debates about fathers' degree of commitment and involvement with their children postdivorce are volatile and complex. Many fathers experience emotional crises resulting from the formal and informal impediments they must deal with as they struggle to maintain close relationships with their children after the dissolution of a romantic relationship. Yet, harsh critics of some efforts to expand nonresident fathers' rights argue that many fathers are less concerned about the day-to-day care of their children than they are in controlling their former partners. What must not be forgotten is that the processes that feed into this perplexing situation occur within a society that remains highly gendered and the welfare of millions of children are at stake.

Fathers and custody issues. While the data are mixed, the joint custody arrangements may be associated with more positive forms of parental involvement such as child support payment rather than with negative paternal behavior or parental conflict. Joint custody variations should be researched thoroughly because they are likely to increase fathers' options for crafting meaningful roles with their children (typically after divorce or in the context of a nonmarital birth).

While some men want and gain either joint or sole custody, some observers contend that our current court system continues to mitigate toward disproportionate custody awards to mothers. The processes associated with custody decision-making need to be examined carefully in light of informed research.

One difficult policy issue is deciding how government programs should take into account the safety of mothers and children when bona fide violence is present, while at the same time not confusing an allegation with proof of abuse. While strong incentives for spurious claims of abuse clearly exist, there are few disincentives for such claims. Additionally, little is known about the most frequent visitation problem which involves fathers who are legally entitled to spend time with their children, but are either completely or sporadically denied access by the mother.

Mothers as gatekeepers. As the preceding comments suggest, there is a great deal of concern about how mothers often serve as gatekeepers in divorced families and how this can hamper fathers' motivation to remain involved. Some research suggests that fathers who feel "enfranchised" are more likely to engage in long term involvement. Many fathers feel that issues related to their divorce, especially concerns about their children, are out of their control and that policies and other legal barriers prevent them from continuing to be committed and responsible caretakers.

Geographic barriers. Some fathers (and mothers) face the prospects of a former partner taking their children and moving to another area. Clearly, if the child(ren) stays with the mother, fathers can not retain the same day-to-day involvement that is possible when both parents remain in the same location. This hotly debated area finds many feminists arguing that no restrictions should be placed on mothers' (or fathers') mobility, while opponents argue that custodial parents who want to relocate and take their child should be forced to demonstrate that such a move is necessary, for either health or employment reasons. Additional research on the consequences of relocation on all involved parties is needed to inform policy in this area.

Paternity establishment. An important component of child support enforcement is paternity establishment. States are using a variety of methods to establish paternity in hopes of maximizing the ability of the state to enforce child support claims against the father and encourage fathers to develop a stronger commitment to their children. One of the key issues associated with child support enforcement policy is the extent to which the resources of the program will be used to mediate conflicts arising over visitation, for example the suspension of drivers licenses (Utah) if the mother refuses to cooperate in allowing visitation access is being explored. Policymakers face a major challenge in finding an optimal child support enforcement policy that maximizes the financial commitment of nonresident fathers while ensuring that fathers have ample opportunity to spend quality time with their children. Experience with attempts to enforce child support obligations has revealed that fathers' visitation patterns are related to child support payment, and greater contact may be related to better outcomes for children.

Starting places. Health insurance determinations and policies about such programs as Head start were also mentioned as places where strong father/family friendly programs could be built. Additionally, there is a new awareness that intervention programs that help imprisoned fathers be better fathers might break the intergenerational transmission of institutionalization. Some states are experimenting with intervention programs in the juvenile justice system with the hopes of figuring out innovative ways of promoting styles of fathering that will break the intergenerational transmission of anti-social behavior.

Other barriers. We reiterate here the plea by many researchers and policymakers that we need to consider how policies targeted at the work place can be used to promote more positive father involvement. For example, it was mentioned that:

- The balance between work and family roles has generally focused on women, because women have traditionally taken the primary responsibility for child rearing while participating in the market as secondary earners; men have been considered the family breadwinner. The "new" father is expected to increase in his caretaking role and share in that responsibility. This will mean changes in the expectations that men have for themselves at work, not to mention the expectation business has for the involved father.

- In 1993 President Clinton signed the Family and Medical Leave Act (FMLA) that allowed parents to take up to six weeks of unpaid leave to care for a newborn or adopted child or another family member who is sick. Such policies seek to eliminate workplace barriers and allow either parent to participate in child care. While this is a good beginning it should be contrasted with parents in Sweden who can take up to a total of 15 months in paid leave to be shared between the mother and father.

- The advent of more flexible working hours may serve to facilitate paternal involvement. For example, one measure of fathers' involvement with their children is the frequency that they provide child care while the mother works. This may be possible when work schedules are more flexible.

A ground swell of support has emerged for researchers and policymakers to reexamine how we view children's well-being. Research agendas and policy decisions need to be sensitive to the positive ways fathers might be involved in family life. Government programs need to include ways to enhance (not limit) the ability of fathers to engage in their primary responsibilities, that of co-caring for the well-being of their children. As we learn more about fathers' potential to affect children's fragile world, it behooves us to (re)consider how to alter those barriers that preclude fathers from being involved with their children in positive ways while enhancing the necessary incentives to prod them to take up their important roles in earnest.

Recommendations

Throughout this report, we have suggested that any (re)conceptualization of father involvement should attend to several interrelated themes and contexts. As part of this discussion we have emphasized that we need to be mindful that father-child issues are:

- shaped by particular structural or familial contexts,
- embedded within a larger ecological context influenced by social class and race factors,
- often fundamentally shaped by gender due to its role as a major organizing principle of social life,
- intimately related to developmental trajectories and life course considerations (with particular attention to children's experiences).

1. Our most general recommendation, then, is that researchers and policymakers interested in father involvement and children's well-being/development attend to these themes in a systematic way.

2. Researchers should continue to show how conceptual and theoretical concerns, measurement and data questions, and policymaking issues overlap and mutually inform each other. These efforts are essential if we are to develop better research strategies and ultimately a more complete understanding of why and how fathers are involved with their children, and contribute to their well-being and development.

3. At the outset of this report, we mentioned that there are some general ways of thinking about fatherhood from a social or legal perspective that in essence considers "father" as some type of status--and the implications this distinction engenders. More work needs to be done to answer the question: Who are fathers? Decisions about the basic definition of "father" are critical and should be examined from various disciplinary perspectives. Thus, attention should be given to developing concepts that capture the meaning and definition of who fathers are. These concepts should address conceptions of fatherhood throughout the life course (pre-birth through grandparenting). As researchers we should be interested in how individuals, subcultural groups, interest groups, the legal system, media, etc. construct the images associated with fatherhood.

4. Following from #3, researchers and policymakers should attempt to understand individuals' perceptions of the varied meanings associated with biological and social fatherhood and the consequences of these perceptions. Under what circumstances does biological paternity entitle men to certain rights or elicit certain obligations? What should those rights and obligations be as defined by the various stakeholders?

5. In addition, we need to explore how individuals distinguish between fathers' investments or perceptions of their status as father versus their views and involvement in the process of fathering. As researchers we need to be clear on these two different meanings associated with fatherhood. These distinctions are related to disciplinary perspectives and ideological views to some extent, but they also play themselves out in the way individuals think, feel, and act when they're "doing fatherhood" or interpreting others as they're "doing fatherhood."

6. In addition to looking at fatherhood as a social or legal status, research and social policy needs to focus on fathering as a process. We also need to develop a better understanding of individuals' motivations for fathering that takes into account individuals' views (and their commitment to others' views) of different ways to be involved.

7. More attention should be given to the specific context and family-related processes that either facilitate or impede specific expressions of fathering, and shape children's well-being and development. While there have been some attempts to collect data about these important facets of family life, data are rarely collected from multiple perspectives and almost never focus on the inner dynamics of family life. Research and policymaking should take a cue from the emerging dialogue about generative fathering and positive paternal involvement. Thus, future research needs to continue to move beyond the deficit model approach where fathers' influence is assessed in terms of absence and/or negative involvement. There is a serious need for greater understanding of how fatherhood is negotiated, directly or indirectly by various parties (mothers and children in particular, and grandparents in nonmaritals birth to young persons). Focusing on mothers/partners' roles as gate-keepers is an essential element to this effort.

8. Researchers should strive to develop a more systematic and richer portrait of how men, women, and children (from different class and race) backgrounds view aspects of fatherhood. This would clarify the cultural norms associated with fatherhood. Researchers have only begun to identify

this portrait and still know very little about such obvious aspects of the parenting role as protecting and breadwinning.

More specifically:

- We need to explore what being a biological and/or social father means to men, prior to conception, during pregnancy, and during the child's life.

- What do each of these ways of distinguishing fathers mean for fathers, mothers, and children?

- What are individuals' (fathers, mothers, and children) views of "good" fathering and how are they conditioned by individual, interpersonal, and more macro or cultural level factors?

- How do these interpretations affect how fathers are involved in children's lives? How are these meanings affected by children's developmental stage, children's personality, children's gender, family structure situation, perceptions about the value of particular ways fathers might be or are involved, interpersonal ties and negotiations with the mother of the children?

Recommendations Focusing on Data Collection and Policymakers

1. We applaud the efforts of the NICHD community for recognizing that the work on father involvement is best done in an interdisciplinary context. For example, those who worked on this report and committee brought diverse interests and disciplines as we focused on the many different topics that affect fathers and their children. Future data collection efforts should therefore, at minimum, demonstrate a sensitivity to the research community comprised of family social demographers, developmental psychologists, family relations and human developmentalists, social psychologists, sociologists, family legal scholars, family economists, and probably others.

2. Research and funding communities need to increase their efforts to improve large scale data collection efforts. While this process has begun, much more refinement is possible. We suggest that the federal and foundation-based funding agencies initiate a data collection effort in which men's/father's issues are the theme rather than an afterthought.

3. Additionally, we recommend that funding agencies promote smaller scale studies that feature fatherhood topics. The series of NICHD sponsored

conferences on fathering during 1996-97 have clearly shown that smaller scale projects can and do generate excellent research that helps us understand the process of parent-child interaction. Indeed, there are many important topics which simply cannot be approached with larger data efforts.

- By necessity, research and funding agencies should focus a great deal of our limited resources on studying the processes associated with key transitions that affect fathering. At the same time, studying fathers and children in more stable contexts is important, but public policy, though potentially useful in some ways when it comes to stable well-functioning families, is largely not as relevant during these stable times. To the extent possible, we should explore the interpersonal dynamics and social processes that enable fathers to make a positive contribution to their children's lives in stable households.

- From a policy perspective, we should be particularly interested in the meanings of paternal involvement and its expression during *crisis or transitional periods* (e.g., issues associated with nonmarital births, divorce and custody issues, men making the transition into or out of prison, the competing demands associated with work and family transitions when children are infants, and job loss).

Footnotes

1. We use the phrases "father involvement" and "paternal involvement" interchangeably to capture the wide range of things fathers do with or for their children. Blankenhorn (drawing on a conservative ideological stance) and Popenoe (relying on the tenets of evolutionary psychology) are likely to take issue with this trend. Blankenhorn in particular suggest that it is folly to think that persons other than biological fathers can replace all of the contributions men and uniquely capable of making to their genetic offspring.

2. Given our recognition of the major social policy issues affecting children in our society, and the limited scope of our report, we focus on fathers' involvement as it relates to minor children. We believe, however, that many of the issues we address are likely to have long-term implications for children once they become adults. Moreover, many of the issues central to our report are directly relevant to those young adults who have not yet become financially self-sufficient.

3. While our report focuses on questions dealing with fathers specifically, we should be mindful that these questions are relevant to the more general public discourses about the definition and meaning of family life in industrialized societies today (see Beutler, Burr, Bahr, and Herrin, 1989; Delaisi de Parseval and Hurstel, 1987; Edwards, 1989; Griswold, 1993; Jurich, 1989; Menaghan, 1989; Scanzoni and Marsiglio, 1993; Scanzoni, Polonko, Teachman and Thompson, 1989).

4. See Blankenhorn (1995) and Popenoe (1996) for notable exceptions to this trend. They both emphasize the biological relationship as the only legitimate way to conceptualize fatherhood. Each also suggests that it is folly to think that persons other than biological fathers can replace all of the contributions men are uniquely capable of making to their genetic offspring. These views are often buttressed by an appeal to a religious fundamentalist doctrine.

5. See Fox and Bruce (1996) and Marsiglio (forthcoming) for discussions about how symbolic interactionists theorize the interpersonal processes that foster or hinder men's opportunities to develop a sense of having a "father-like" identity.

6. Some psychoanalytically inclined theorists with interests in object relations theory and self psychology have recently emphasized the need to explore unconventional and controversial innate variables such as "father presence" (see Krampe and Fairweather, 1993).

7. The NICHD working group "Male Fertility and Family Formation/Dissolution" address some issues related to this area.

8. See Nock (forthcoming) for an alternative perspective.

9. The evidence presented in this research does not allow us to determine whether the spending on a higher quality home environment (e.g., a good neighborhood and school system, higher quality child care, or cognitively stimulating toys and books) itself causes better outcomes, or whether that spending is, instead, only a marker for parents who value cognitive success and who spend time nurturing their children's cognitive abilities.

10. The data cited here are reports from custodial mothers. Several studies (Peters and Argys, 1996; Seltzer, 1996; and Smock and Manning, 1996) show that fathers generally report paying more than mothers report receiving.

References

Achatz, M. and MacAllum, C. A. 1994. *Young Unwed Fathers, Report from the Field.* Philadelphia, PA: Public/Private Ventures.

Achenbach, T. M., and Edelbrock, C. (1983). *Manual for the Child Behavior Checklist and revised Child Behavior Profile.* Burlington, VT: University of Vermont, Department of Psychiatry.

Allison, M. D., and Sabatelli, R. M. 1988. Differentiation and individuation as mediators of identity and intimacy in adolescence. *Journal of Adolescent Research*, 3, 1-16.

Amato, P. 1998. More than money? Men's contributions to their children's lives. In A. Boothe and Crouter, N. (Eds.), *Men in families: When do they get involved? What difference does it make.* (pp. 241-278). Mahwah, NJ: Lawrence Erlbaum Associates.

Amato, P. 1987. *Children in Australian families: The growth of competence.* New York: Prentice Hall.

Anderson, S. A., and Sabatelli, R. M. 1992. The differentiation in the family system scale (DIFS). *American Journal of Family Therapy*, 20, 77-89.

Anderson, S. A., and Sabatelli, R. M. 1990. Differentiating differentiation and individuation: Conceptual and operational challenges. *American Journal of Family Therapy*, 18, 32-50.

Arditi, J. A. and Kelly, M. 1994. Fathers' perspectives of their co-parental relationships postdivorce. *Family Relations, 43*, 61-67.

Arditti, J. A. 1991. Child support noncompliance and divorced fathers: Rethinking the role of paternal involvement. *Journal of Divorce and Remarriage, 14*, 107-119.

Argys, L. M., Peters, H.E., Brooks-Gunn, J. and Smith R. 1996 *Contributions of Absent Fathers to Child Well-being: Impact of Child Support Dollars and Father Child Contact.* Paper presented at the Conference on Father Involvement, Bethesda, MD, October 10-11, 1996.

Asarnow, J. R., Goldstein, MI J., Tompson, M. and Guthrie, D. 1993. One-year outcomes of depressive disorders in child psychiatric in-patients: evaluation of the prognostic power of a brief measure of expressed emotion. *Journal of Child Psychology and Psychiatry*, 34 (2), 129-137.

Asarnow, J. R., Goldstein, MI J., Tompson, M. and Guthrie, D. 1993. One-year outcomes of depressive disorders in child psychiatric in-patients: evaluation of the prognostic power of a brief measure of expressed emotion. *Journal of Child Psychology and Psychiatry*, 34 (2), 129-137.

Bartle, S. E. and Sabatelli, R. M. 1989. Family system dynamics, identity development, and adolescent alcohol use: Implications for family treatment. *Family Relations*, 38, 258-265.

Bartle, S. E. and Sabatelli, R. M. 1995. The behavioral and emotional reactivity index: Preliminary evidence for construct validity from three studies. *Family Relations*, 44, 267-277.

Bartle, S. E., Sabatelli, R. M. and Anderson 1989. A model of parenting style, adolescent individuation and adolescent self-esteem. Preliminary findings. *Journal of Adolescent Research*, 4, 283-298.

Betson, D.M. 1990. Alternative Estimates of the Cost of Children from the 1980-86 Consumer Expenditure Survey. A Final Report to the U.S. Department of Health and Human Services, September 1990.

Beutler, I. F., Burr, W. R., Bahr, K. S., and Herrin, D. A. 1989. The family realm: Theoretical contributions for understanding uniqueness. *Journal of Marriage and the Family, 51*, 805-816.

Bianchi, S. M. 1995. The changing demographic and socioeconomic characteristics of single parent families. In Hanson, S. M. H., Heims, M. L., Julian, D. J., and Sussman, M. B. (Eds.), *Single parent families: Diversity, myths, and realities* (pp. 71-97). New York: The Haworth Press.

Blankenhorn, D. 1995. *Fatherless America: Confronting our most urgent social problem.* New York: BasicBooks.

Blau, F.D., Ferber, M.A., and Winkler, A.E. 1997. The Economics of Women, Men, and Work. Policies to Balance Paid Work and Family, January 1997.

Braver, S. H., Wolchik, S. A., Sandler, I. N., Gogas, B. S., Zvetina, D. 1991. Frequency of visitation by divorced fathers: Differences in reports by fathers and mothers. *American Journal of Orthopsychiatry, 61*, 448-454.

Brenner, Eric and Dereck Orr. *What the States Are Doing to Promote Responsible Fatherhood: A National Survey.* Council of Governors. Washington, D.C. August 1996.

Brodrick, C. *Understanding Family Process.* Sage Publications, Thousand Oaks. CA 1993.

Brown, B. V. 1996. The single father family: Recent trends in demographic, economic, and public transfer use characteristics. Paper presented at the Conference of Fathers' Involvement, NICHD, October.

Burton, L. M. and Snyder, T. R. 1996. The invisible man revisited: Historical perspectives on men's roles in African American Families. Paper presented at the National Symposium of Men in Families. The Pennsylvania State University, October.

Carter, E. A., and McGoldrick, M. 1989. *Overview: The changing family life cycle: A framework for family therapy.* In E. A. Carter and M. McGoldrick (eds.), *The changing family life cycle: A framework for family therapy*, (2nd ed., pp. 3-28). Boston: Allyn and Bacon.

Casper, L.M. and M.O'Connell 1996. *Couple Characteristics and Fathers as child Care Providers.* Washington D.C.: U.S. Bureau of the Census.

Coleman, J. 1990. *Foundations of social theory.* Cambridge, MA: Harvard University.

Coleman, J. 1988. Social capital in the creation of human capital. *American Journal of Sociology, 94*, 95-120.

Coltrane, S. 1996. *Family man: Fatherhood, housework, and gender equity.* New York: Oxford University Press.

Da Vanzo, J. and Rahman, M. O. 1993. American families: Trends and correlates. *Population Index, 59*, 350-386.

Daly, K. J. 1995. Reshaping fatherhood: Finding the models. In Marsiglio, W. (Ed.), *Fatherhood: Contemporary theory, research, and social policy*. Thousand Oaks, CA: Sage.

Delaisi de Parseval, G. and Hurstel, F. 1987. Paternity "A la Francaise." In M. E. Lamb (Ed.), *The father's role: Cross-cultural perspectives* (pp. 59-87). Hillsdale, NJ: Lawrence Erlbaum.

Doherty, W.J. 1997. A conceptual model of influences on father involvement and the transition to fatherhood. Paper presented at the Theory Construction and Research Methodology Workshop, Arlington, VA November.

Edin, K. 1994. *Single mothers and absent fathers: The possibilities and limits of child support policy.* Center for Urban Policy Research Report. New Brunswick, NJ: Rutgers University.

Edwards, J. N. 1989. The family realm: A future paradigm or failed nostalgia? *Journal of Marriage and the Family, 51*, 816-818.

Eggebeen, D. J., Snyder, A. R., and Manning, W. D. 1996. Children in single-father families in demographic perspective. *Journal of Family Issues, 17*, 441-465.

Ehrenreich, B. 1983. *The hearts of men: American dreams and the flight from commitment.* New York: Anchor.

Epstein, N.B., Baldwin, L.M., and Bishop, D.S. 1983. The McMaster Family Assessment Device. *Journal of Marital and Family Therapy*, 9, 171-180.

Farley, J. 1979. Family separation-individuation tolerance: A developmental conceptualization of the nuclear family. *Journal of Marital and Family Therapy*, 5, 61-67.

Fox, G. L. and Bruce, C. 1996. Development and validation of measures of parenting for low-income, high-risk men. Paper presented at the Theory and Methodology Workshop, National Council on Family Relations, November.

Fox, G.L. and Kelly, R.F. 1995. Determinants of child custody arrangements at divorce. *Journal of Marriage and the Family, 57*, 693-708.

Fristad, M. and Clayton, T.L. 1991. Family dysfunction and family psychopathology in child psychiatry outpatients. *Journal of Family Psychology*, 5, 46-59.

Furstenberg, F. F., Jr. 1995. Fathering in the inner city: Paternal participation and public policy. In Marsiglio, W. 1995. *Fatherhood: Contemporary theory, research, and social policy.* Thousand Oaks, CA: Sage.

Furstenberg, F. F., Jr. 1988. Good dads--bad dads: Two faces of fatherhood. In A. J. Cherlin (Ed.), *The changing American family and public policy* (pp. 193-218). Washington, DC: Urban Institute.

Gavazzi, S.M. and Sabatelli, R.M. 1990. Family system dynamics, the individuation process and psychosocial development. *Journal of Adolescent Research*, 5, 499-518.

Gavazzi, S.M., Goettler, D.E. Solomon, S.P., and McKenry, P.C. 1994. The impact of family and peer differentiation levels on adolescent psychosocial development and problematic behaviors. *Contemporary Family Therapy*, 16, 431-448.

Gavazzi, S.M., Anderson, S.A., and Sabatelli, R.M. 1993. Family differentiation, peer differentiation and adolescent adjustment in a clinical sample. *Journal of Adolescent Research*, 8, 205-225.

Gavazzi, S. M. 1995. The Growing Up FAST: Families and Adolescents Surviving and Thriving TM Program. *Journal of Adolescence*, 18, 31-47.

Gavazzi, S.M. 1994b. Perceived social support from family and friends in a clinical sample of adolescents. *Journal of Personality Assessment*, 62, 465-471.

Gavazzi, S. M. 1994a. Advances in assessing the relationship between family differentiation and problematic functioning in adolescents. *Family Therapy*, 21, 249-259.

Gavazzi, S.M. 1993. The relation between family differentiation levels in families with adolescents and the severity of presenting problems. *Family Relations*, 42, 463-468.

Gershenson, H. P. 1983. Redefining fatherhood in families with white adolescent mothers. *Journal of Marriage and the Family*, 45, 591-599.

Gerson, K. 1993. *No man's land: Men's changing commitments to family and work.* New York: Basic Books.

Greene, A.D. and Moore, K.M. 1996. *Nonresident Father Involvement and Child Outcomes Among Children in Families on Welfare.* Paper presented at the Conference on Father Involvement, Bethesda, MD, October 10-11, 1996.

Greif, G. L. 1995. Single fathers with custody following separation and divorce. In Hanson, S. M. H., Heims, M. L., Julian, D. J., and Sussman, M. B. (Eds.), *Single parent families: Diversity, myths, and realities* (pp. 213-231). New York: The Haworth Press.

Griswold, R. L. 1993. *Fatherhood in America: A history.* New York: Basic Books.

Haas, L. and Hwang, P. 1995. Company culture and men's usage of family leave benefits in Sweden. *Family Relations, 44*, 28-36.

Haas, L. 1993. Nurturing fathers and working mothers: Changing gender roles in Sweden. In J. Hood (Ed.), *Men, work, and family* (pp. 238-261). Thousand Oaks, CA: Sage.

Hagan, J., MacMillan, R., and Wheaton, B. 1996. New kid in town: Social capital and the life course effects of family migration on children. *American Sociological Review, 61*, 368-385.

Hawkins, A.J., and Palkovitz, R. 1997. Beyond ticks and clicks: The need for more diverse and broader conceptualizations and measures of father involvement. Paper presented at the National Council on Family Relations Annual Conference, Arlington, VA, November.

Hawkins, A. J., Christiansen, S. L., Sargent, P. K. and Hill, E. J. 1995. Rethinking fathers' involvement in child care: A developmental perspective. In W. Marsiglio (Ed.), *Fatherhood: Contemporary theory, research, and social policy* (pp. 41-56). Thousand Oaks, CA: Sage.

Hibbs, E. D., Hamburger, S. D., Lenane, M., Rapoport, J. L., Kruesi, M. J. P., Keysor, C. S., and Goldstein, M. J. 1991. Determinants of expressed emotion in families of disturbed and normal children. *Journal of Child Psychology and Psychiatry*, 32 (5), 757-770.

Hyde, J.S., Essex, M.J. and Horton F. 1993. Fathers and Parental Leave-Attitudes and Experiences. *Journal of Family Issues*, 14, No 4, December 1993: 616-638.

Ihinger-Tallman, M., Pasley, K., Buehler, C. L. 1995. Developing a middle-range theory of father involvement postdivorce. In W. Marsiglio (Ed.), *Fatherhood: Contemporary theory, research, and social policy* (pp. 57-77). Thousand Oaks, CA: Sage.

Jurich, J. 1989. The family realm: Expanding its parameters. *Journal of Marriage and the Family, 51*, 819-822.

Klein, D. M. and White, James, M. 1997. *Family Theories: An Introduction.* Sage Publications. Thousand Oaks, CA: Sage.

Lamb, M. E., Pleck, J. H., Charnov, E. L. and Levine, J. A. 1987. A biosocial perspective on paternal behavior and involvement. In Lancaster, J. B., Altmann, J., Rossi, A. S. Rossi, and Sherrod, L. R. (Eds.), *Parenting across the lifespan: Biosocial dimensions* (pp. 111-142). New York: Aldine de Gruyter.

Lamb, M. E. and Sagi, A. 1983. *Fatherhood and family policy.* Hillsdale, NJ: Lawrence Erlbaum.

Lamb, M. E., Pleck, J. H., Charnov, E. L. and Levine, J. A. 1985. *Paternal behavior in humans. American Psychologist, 25*, 883-894.

Lamb, M. E. 1997. *The role of the father in child development.* New York: John Wiley and Sons.

Lapsley, D. K. 1993. Toward an integrated theory of adolescent ego development: The "New Look" at adolescent egocentrism. *American Orthopsychiatric Association*, 63, 562-571.

Larson, J. 1992, July. Understanding stepfamilies. *American Demographics*, 36-40.

Lazear, E.P., and Michael, R.T. 1988. *Allocation of Income Within the Household.* The University of Chicago Press, Chicago, 1988.

Levine, J. A., Murphy, D. T., and Wilson, S. 1993. *Getting men involved: Strategies for early childhood programs.* New York: Scholastic.

Levine, J. A. and Pitt, E. W. 1996. *New expectations: Community strategies for responsible fatherhood.* New York: Families and Work Institute.

Levy, R. 1993, September. Panelist for Fathers' Rights at the National Academy of Sciences meeting, America's Fathers: Abiding and Emerging Roles in Family and Economic Support Policies. Washington, DC.

Lopez, F. G., and Gover, M. R. 1993. Self-report measures of parent-adolescent attachment and separation-individuation: A selective review. *Journal of Counseling and Development*, 71, 560-569.

Maccoby, E.E. and Mnookin, R.H. 1992. *Dividing the child: Social and legal dilemmas of custody.* Cambridge: Harvard University Press.

Marsiglio, W. 1995c. Stepfathers with minor children living at home: Parenting perceptions and relationship quality. In W. Marsiglio (Ed.), *Fatherhood: Contemporary theory, research, and social policy* (pp. 211-229). Thousand Oaks, CA: Sage.

Marsiglio, W. (forthcoming). *Procreative man.* New York: New York University Press.

Marsiglio, W. 1995a. Fatherhood scholarship: An overview and agenda for the future. In W. Marsiglio (Ed.), *Fatherhood: Contemporary theory, research, and social policy* (pp. 1-20). Thousand Oaks, CA: Sage.

Marsiglio, W. 1995b. Fathers' diverse life course patterns and roles: Theory and social interventions. In W. Marsiglio (Ed.), *Fatherhood: Contemporary theory, research, and social policy* (pp. 1-20). Thousand Oaks, CA: Sage.

Marsiglio, W. 1995d. Young nonresident biological fathers. *Marriage and Family Review, 20*, 325-348.

May, K. A. 1980. A typology of detachment/involvement styles adopted during pregnancy by first-time expectant fathers. *Western Journal of Nursing Research, 2*, 445-453.

May, K. A. and Perrin, S. P. 1985. Prelude: Pregnancy and birth. In S. M. H. Hanson and F. W. Bozett (Eds.), *Dimensions of fatherhood* (pp. 64-91). Beverly Hills, CA: Sage.

McBride, B. A. 1990. The effects of a parent education/play group program on father involvement in child rearing. *Family Relations, 39*, 250-256.

McBride, B. A. and Mills, G. 1993. A comparison of mother and father involvement with their preschool age children. *Early Childhood Research Quarterly, 8*, 457-477.

McKenry, P and Price, S. 1995. *Families in Transition.* Sage Publications. Thousand Oaks, CA.

Monaghan, E. G. 1989. Escaping from the family realm: Reasons to resist claims for its uniqueness. *Journal of Marriage and the Family, 51*, 822-825.

Mintz, S. 1998. From patriarchy to androgyny and other myths: Placing men's family roles in historical perspective. In A. Booth and N. Crouter (Eds.), *Men in Families: When do they get involved? What difference does it make?* (pp. 3-30). Mahwah, NJ: Lawrence Erlbaum Associates.

Nock, S. (forthcoming). *Marriage in Men's Lives.* New York: Oxford University press.

Nord, C. W. and Zill, N. 1996a. *Non-custodial parents' participation in their children's lives: Evidence from the Survey of Income and Program Participation, Volume I Summary of SIPP Analysis.* Report prepared for the Office of Human Services Policy, Office of the Assistant Secretary of Planning and Evaluation, U.S. Department of Health and Human Services.

Nord, C. W. and Zill, N. 1996b. *Non-custodial parents' participation in their children's lives: Evidence from the Survey of Income and Program Participation, Volume II Synthesis of Literature.* Report prepared for the Office of Human Services Policy, Office of the Assistant Secretary of Planning and Evaluation, U.S. Department of Health and Human Services.

O'Connell, M. 1993. *Where's papa? Fathers' role in child care.* Population Trends and Public Policy. Washington, D.C.: Population Reference Bureau.

Palkovitz, R. 1997. Reconstructing "involvement": Expanding conceptualizations of men's caring in contemporary families. In A. J. Hawkins and D. C. Dollahite (Eds.), *Generative fathering: Beyond deficit perspectives.* Thousand Oaks, CA: Sage.

Pleck, J. H., Lamb, M. E., and Levine, J. A. 1986. Epilog: Facilitating future change in men's family roles. *Marriage and the Family Review, 9 (3-4),* 11-16.

Popenoe, D. 1996. *Life without father.* New York: The Free Press.

Presser, H.B. 1995. Job, Family and Gender: Determinants of Nonstandard Work Schedules Among Employed Americans in 1991. *Demography,* 32, No 4, November 1995: 577-598.

Radin, N. 1994. Primary-caregiving fathers in intact families. In A. E. Gottfried and A. W. Gottfried (Eds.), *Redefining families: Implications for children's development* (pp. 55-97). New York: Plenum.

Rumberger, R.W. 1983. Dropping out of high school: The influence of race, sex, and family background. *American Educational Research Journal.* 20: 199-220.

Sabatelli, R. M. and Bartle, S.E. 1995. Survey approached to the assessment of family functioning: Conceptual, operational and analytical issues. *Journal of Marriage and the Family,* 57, 1025-1039.

Sabatelli, R. M., and Anderson, S. A. 1991. Family system dynamics, peer relationships and adolescents' psychological adjustment. *Family Relations,* 40, 363-369.

Sabatelli, R. M., and Mazor, A. 1985. Differentiation, individuation, and identity formation: The integration of family system and individual developmental perspectives. *Adolescence,* 20, 619-633.

Scanzoni, J., Polonko, K., Teachman, J., and Thompson, L. 1989. *The sexual bond: Rethinking families and close relationships.* Beverly Hills, CA: Sage.

Scanzoni, J. and Marsiglio, W. 1993. New action theory and contemporary families. *Journal of Family Issues, 14,* 105-132.

Seltzer, J.A. 1990. Legal custody arrangements and children's economic welfare. *American Journal of Sociology,* 96, 895-929.

Seltzer, J. A. and Brandreth, Y. 1995. What fathers say about involvement with children after separation. In W. Marsiglio (Ed.), *Fatherhood: Contemporary theory, research, and social policy.* Thousand Oaks, CA: Sage.

Seltzer, Judith et. al. *Father by Law: Effects of Joint Legal Custody on Nonresidential Father's Involvement with Children.* Paper presented at the Conference on Father Involvement, Bethesda, MD Oct 11-12. 1996.

Smith, H. L. and Morgan, S. P. 1994. Children's closeness to father as reported by mothers, sons and daughters: Evaluating subjective assessments with the Rasch model. *Journal of Family Issues, 15*, 3-29.

Snarey, J. 1993. *How fathers care for the next generation.* Cambridge, MA: Harvard University Press.

Steelman, L.C., and Doby, J.T. 1983. Family size and birth order as factors on the IQ performance of Black and White children. *Sociology of Education, 56*, 101-109.

Staff Of U.S. Commission on Child and Family Welfare. *Public Policies and Procedures that Work Against the Two Parent Family.* June, 1995.

Sullivan, M. 1989. Absent fathers in the inner city. *Annals of the American Academy of Political and Social Science, 501*, 48-58.

Tanfer, K. and Mott, F. L. 1997. The meaning of fatherhood for men. Background paper prepared for the Working Group on Male Fertility and Family Formation. NICHD, Washington, DC, January.

Thompson, R. A. 1994. The role of the father after divorce. *Children and Divorce, 4*, 210-235.

Thompson, L. 1993. Conceptualizing gender in marriage: The case of marital care. *Journal of Marriage and the Family, 55*, 557-569.

U.S. Bureau of the Census, Current Population Reports, Series P60-187, *Child Support for Custodial Mothers and Fathers: 1991*, U.S. Government Printing Office, Washington, DC, 1995.

Volling, B. L. and Belsky, J. 1991. Multiple determinants of father involvement during infancy in dual-earner and single-earner families. *Journal of Marriage and the Family, 53*, 461-474.

Walzer, S. 1996. Thinking about the baby: Gender and divisions of infant care. *Social Problems, 43*, 219-234.

West, C. and Zimmerman, D. H. 1987. Doing gender. *Gender and Society, 1*, 125-151.

Figure 1. Ways to Be Involved in Parenting (Adapted from Palkovitz, 1997)

Communication
- Listening
- Talking
- Writing notes
- Making Scrapbook
- Calling on phone when away
- Expressing love
- Expressing concerns
- Expressing concerns
- Expressing forgiveness
- Expressing valuing
- Showing genuine interest in day, friends, interest, feelings, thoughts, aspirations, etc.

Teaching
- Advising
- Role modeling
- Problem solving
- Disciplining
- Commenting on child's or parent's progress
- Teaching spiritual development, praying together, etc.
- Fostering independence
- Providing long-term perspective
- Giving choices and respecting selections made
- Assisting in gaining new skills (teach to ride bike, swim, drive, balance checkbook
- Scolding
- Giving chores
- Teaching about own and other cultures
- answering questions
- Encouraging interests, hobbies
- Doing taxes

Monitoring
- Friendships
- Dating partners
- Safety
- Whereabouts
- Health
- Grooming
- Schoolwork
- Checking on sleeping child
- Going to parent/teacher conferences
- Overseeing TV or movie watching and music listening to
- Rides to and from places

Thought Processes
- Worrying
- Planning
- Dreaming
- Hoping
- Evaluating
- Praying for child
- "Being there"

Errands
- Driving
- Picking up items
- Making calls for

Caregiving
- Feeding
- Bathing
- Clothing
- Reaching things for children
- Caring for sick child
- Tucking into bed

Child Related Maintenance
- Cleaning
- Repairing
- Laundering
- Ironing
- Cooking

Shared Interests
- Developing expertise
- Providing for instruction
- Reading together

Availability
- Attending events
- Leading activities (scouting, PTA, etc.)
- Spending time together
- Allowing/encouraging child to enter into leisure activities
- Baking cookies for child's activities

Planning
- Birthdays
- Vacations
- Education
- Holidays
- Saving for future
- Scheduling time with friends

Shared Activities
- Exercising
- Shopping
- Picnicking
- Movie going
- Parks
- Eating meals
- Playing together
- Building forts
- Celebrating holidays
- Working together
- Dancing together

BEST COPY AVAILABLE

Figure 1. Ways to Be Involved in Parenting (Adapted from Palkovitz, 1997)

- Chaperoning events

Providing
- Financing
- Housing
- Clothing
- Food
- Medical Care
- Education
- Safe transportation
- Needed documentation (birth certificates, social security, etc.)
- Help in finding a job
- Furnishings
- Developmentally appropriate toys or equipment
- Extracurricular activities
- Alternative care
- Insurance

Affection
- Loving
- Hugging
- Kissing
- Cuddling
- Tickling
- Making eye contact
- Smiling
- Genuine friendship with child
- Showing patience
- Praising

Protection
- Arranging environment
- Monitoring safety
- Providing bike helmets, life jackets, etc.

Supporting Emotionally
- Encouraging
- Developing interests

BEST COPY AVAILABLE

Figure 2. *An Expanded Conceptualization of Parent Involvement (Adapted from Palkovitz, 1997)*

Panel A: Domains Of Involvement

Domain	*Definition/Examples*
COGNITIVE:	Reasoning, planning, evaluating, monitoring
AFFECTIVE:	Emotions, feeling, affection
BEHAVIORAL:	Overtly observable manifestations of involvement, such as feeding, talking to, teaching, etc.

Panel B: Simultaneously Occurring Continua

Dimension	*Range*
TIME INVESTED	Inappropriate-highly appropriate
DEGREE OF INVOLVEMENT	None, low, moderate, high
OBSERVABILITY	Covert-overt
SALIENCE OF INVOLVEMENT	Low-high
DIRECTNESS	Direct-indirect
PROXIMITY	Far away-in same room-proximity-touching

Panel C: Factors Moderating Involvement

Factor	*Description*
INDIVIDUAL/PERSONALITY	Personal Psychological well-being Subjective experience/evaluation Motivation Priorities/Commitments
INTERACTIONAL CONTEXT PROCESS	Developmental Live Course Trajectories Family process Gatekeeping Interaction with other men/friends Child Custody Policies Welfare Reform Father Related Policies Public Policy and Business Practices Socio-Cultural Factors (e.g., norms about stepfathers)
MESO-MACRO CONTEXTS	Public Policy Law Business Practice Cultural Ideologies

BEST COPY AVAILABLE

Chapter 5:

Methodological Issues in Improving Data on Fathers

Chapter 5: Report of the Working Group on the Methodology of Studying Fathers

Andrew Cherlin, Ph.D. (Co-chair)
Jeanne Griffith, Ph.D. (Co-chair)

Introduction

The well-known changes in American families over the past few decades have greatly increased the percentage of children who do not reside with their fathers. In 1970, 85 percent of all children under 18 were living with both their parents, whereas by 1995, only 69 percent were doing so. Another 23 percent of children lived with their mother only, 4 percent with their father only, and 4 percent lived with neither parent (U.S. Bureau of the Census, Department of Commerce).

As the composition of families has changed, much attention has focused on the roles of absent fathers in their children's lives. At first the focus was on the economic contributions of these fathers. In recent years, public concern has been wide-ranging, encompassing the psychological, social, educational, and health consequences of absent fathers. Moreover, as men's family roles have changed, the family and fertility behavior of all fathers, present as well as absent, has become of greater interest to researchers. Yet social scientific evidence on the process of becoming a father and on what fathers do is limited.

In addition, as parenthood has become decoupled from marriage, the reproductive careers of men have become more distinct from the reproductive careers of women. Men's sexual activities encompass a greater number of partners over the life course than was the case a few decades ago. Because of the increases in divorce and childbearing outside of marriage, men are more likely to have had children by two or more women than was the case a generation or two ago. The rise of cohabitation has led to informal partnerships that are sometimes of short duration.

To be sure, these trends have affected women similarly. But for a number of reasons, men's reproductive careers have the potential to be more complex than women's. Men are not limited by pregnancy and they typically do not provide primary care for young children; moreover, their rates of remarriage after divorce are higher than women's (Cherlin, 1992). Consequently, they report more sexual partners than do women, (Laumann, Gagnon, Michael, and Michaels, 1994) and they are more likely to produce children with multiple partners than are women. Since they are not likely to be living with children from previous unions, they may underreport the existence of those children. It is, therefore, a greater challenge to obtain complete information about sexual, reproductive, are union histories of men than of women.

What is more, we know much less about becoming and being a father than we do about becoming and being a mother. Since 1955, American demographers have fielded a series of surveys of the fertility of women. In 1973, the Federal government took over responsibility for the series, which it entitled the National Survey of Family Growth. It comprises a complex and sophisticated survey of women of childbearing age. Recent waves have asked about the men in the women's lives. But it does not include interviews with men.

In fact, the overwhelming majority of social scientific studies of children's family lives have focused on mothers rather than fathers, even when the fathers were present in the home. Perhaps the fundamental methodological problem that we face in studying fathers is that the household survey, the basic data gathering tool for demographic and behavioral science research on the family, the labor force, and fertility, was designed based on assumptions that no longer hold. When the standard household survey was being developed at mid-century, it was reasonable to assume that a family lived in just one household. The divorce rate and the percentage of births outside of marriage were far lower than they are as we approach the twenty-first century. Thus, it was reasonable to assume that complete and accurate information about a family unit could be obtained from a single household.

However, social change has undermined this assumption. Increasingly, families extend across the boundaries of households, so that the standard survey, focused on the members of one household, is no longer a sufficient method for obtaining complete and accurate information about family relationships. It is obvious that the standard household survey is deficient in providing complete and accurate information about non-resident fathers. It is less obvious but still true that the standard survey—focused as it is on mothers and children in the household—is deficient in providing a complete sexual, reproductive, and union history of men in the household.

As a result, best-practice studies of fathers and families have already moved beyond the standard survey practices of mid-century. Currently, a number of methodological innovations in survey research are being developed and tested. We will describe many of these below. This line of methodological research is still new, and much more work is needed. We applaud this line of research and call for its expansion.

Survey-based studies, however, are inherently limited in the kind of information they can provide. Surveys are best used as hypothesis-testing mechanisms after a general understanding of a topic has been obtained. But when little is known about the behavior of interest, as is the case with father-child relations, surveys cannot provide a full picture. Rather, more intensive studies are necessary as hypothesis-generating mechanisms. These studies include the intensive observation that developmental psychologists specialize in and ethnographic studies of the kind practiced in anthropology and sociology. We endorse further use of these methods also.

Other Working Groups at the Fatherhood Conference being sponsored by the National Institute for Child Health and Human Development will address the substantive issues concerning fathers in considerable detail. Underlying these substantive questions are important methodological issues that must be addressed before we can have confidence in data to be collected on fathering and fatherhood. The Working Group on the Methodology of Studying Fathers was established to address these issues, in consultation with other working groups.

The organization of this paper is as follows. Section 1 reviews current studies that provide some information about fathers or that have interesting methodological approaches that yield insights into improving data on fathers. Section 2 comprises a lengthy examination of a number of methodological issues that are related to the quality and characteristics of data on fathers. Section 3 examines the issue of how new data collection should be undertaken. Section 4 presents our recommendations.

Current Activities

Before discussing current methodological issues, let us briefly summarize some of the major national surveys with protocols that are of methodological interest. While the debate evolves in the statistical and research communities as to what information is needed and how it needs to be collected, important initiatives are being made in both publicly and privately sponsored surveys. A brief overview of major activities and studies that are currently the primary sources of information on fathers serves to inform the discussion about further advances that may be required.

Studies of Methodological Interest (listed alphabetically):

Add Health. Add Health, a national longitudinal study of adolescent health, is a comprehensive study of the health and health behaviors of adolescents that has been uniquely designed to measure the contextual factors that influence these outcomes. Outcomes to be examined include behaviors related to fertility as well as a broad range of other health-related behaviors and outcomes; antecedents include measures of adolescents' relationships with their resident and nonresident fathers. The study features a longitudinal, multi-level design with independent measurement at the individual, family, peer group, school, and community levels; further, the study is designed to provide information from both partners to romantic relationships in a substantial number of cases. The basic sample is drawn from a stratified probability sample of 80 high schools and 80 feeder schools (middle or junior high schools) nationwide. Information on peer networks, nonsensitive health behaviors, and school climate is collected in the schools from all students attending grades 7-12. Subsequent interviews are conducted in individuals' homes with a subsample of 20,000 adolescents drawn from the school rosters and with a parent of each adolescent. Adolescents are re-interviewed after one year. All adolescent interviews are conducted with a laptop computer, with sensitive portions of the interview self-administered via audio-CASI.

Early Childhood Longitudinal Study (ECLS). The ECLS will be a national, longitudinal cohort of kindergartners in fall 1998, to be followed once or twice a year through at least fifth grade. The study is sponsored by the National Center for Education Statistics. The household roster will obtain some information about persons who have lived with the child at some point in the past for four months or more. Detailed interviews will be conducted with the child, the mother, teachers, and school administrators over the life of the study. There are no current plans to interview the fathers or to seek to find absent parents and interview them.

National Adult Literacy Study (NALS). NALS, sponsored by the National Center for Education Statistics and conducted in 1992, is one of the few national sample surveys that combined a household sample of the noninstitutionalized population with a national sample of inmates in state or federal prisons. Nearly 1,150 inmates in 80 federal and state prisons were interviewed and tested for their literacy skills. These respondents were included in both a separate data set and in national population estimates. This proved an effective strategy for providing a more comprehensive look at the literacy skills of a larger segment of the population. The inclusion of inmates may help to address undercoverage in surveys of fathers.

National Household Education Survey (NHES). The NHES is a random-digit-dial telephone survey that uses computer-assisted telephone interviewing technology to collect data on high priority topics that cannot be addressed adequately through school- or institutional-based surveys. The 1996 NHES included a parent involvement component that asked the parents/guardians of 16,910 kindergartners through 12th graders questions about mothers' and fathers' involvement in their children's schools. The survey also asked about children's contact with nonresident fathers and about the involvement of these fathers in their children's schooling. Responses were provided by the resident parent, usually the mother. The sample included 5,400 children who had a nonresident father.

National Longitudinal Survey of Youth, 1997 (NLSY97). The NLSY97 will attempt to roster all people living in the residence of the sample youth as well as relatives who live outside of the household including biological, adoptive, and step-parents; full, half, and step siblings; non-resident children of parents in the household; and the other parent of any such children. Information solicited about these people will depend on the relationship of the sample youth to the person. While address information will be obtained when possible for absent parents, there are currently no firm plans for follow-up with absent parents. The survey will include a parent interview in the initial year, and could have additional parent surveys in later years.

National Survey of Adolescent Males. Since 1988, three waves of this study have interviewed young men about their sexual, contraceptive, and HIV prevention behaviors. In addition to making substantial contributions to information and research on male fertility-related behaviors, this study has made two particular methodological contributions. First, it has demonstrated the feasibility of interviewing young men on these topics by obtaining good levels of response in both initial and followup interviews.

Second, it has conducted an experimental assessment of audio-CASI methods for obtaining self-reports of sensitive behaviors. Initial findings indicate that audio-CASI methods increase self-reports of same-sex sexual behavior significantly over paper-and-pencil self-report methods. The most recent round of this study, conducted in 1995, included followup with the original panel interviewed in 1988 and 1991, as well as interviews with a new nationally representative sample of 1729 males age 15-19.

National Survey of Families and Households (NSFH). The NSFH is a national longitudinal survey addressing a broad range of topics related to family life. The first two rounds were conducted in 1987-88 and 1992-94. Within each of approximately 13,000 households, a primary respondent was selected and interviewed. The same interview was administered regardless of the respondent's gender. Much of the interview focused on children and parenting. Some couple data was obtained. Questions about the first husband/wife included whether he/she had been married before and/or had children at the time of the union. Union and birth transitions between waves is quite detailed, but there is limited information on nonresident unions. Both waves include a full range of relationship indicators for resident unions. Attitudes toward union formation and dissolution (both normative and personal) are included. Dating, sexual experience, and early family formation events are available for older focal children (age 13-18 in 1988, 18-23 in 1993), and the next younger group of focal children provide information on dating and sexual experience at the second wave.

National Survey of Family Growth (NSFG). The NSFG is a periodic survey of U.S. women ages 15-44 that has been conducted by the National Center for Health Statistics about every 5 or 6 years since 1973. The most recent cycle was conducted in 1995, and a public use data file has been released. The survey used innovative data collection techniques, including audio computer assisted self-interviewing (ACASI) to obtain detailed information about the respondent's life. The NSFG also asked about the men in the respondent's life. The methodological importance of this study is, in part, that it found that both incentives and the ACASI technique increased reporting of sensitive events and behaviors (e.g. abortions). In this application, the incentives promoted higher response rates and more than paid for themselves, evidently by creating a reciprocation between the respondent and the survey administrator. In addition, test interviews and expert analyses in the NCHS Questionnaire Design Research Laboratory and by Research Triangle Institute, the survey contractor, were instrumental in developing the NSFG life history calendar and procedures, as well as resolving many other questionnaire issues (Peterson and Schechter, 1997).

National Survey of Men. Although this 1991 study of sexual behavior and condom use among 20-39 year old men in the United States did not have a strong focus on fertility issues, it provides rare data on adult males' reproductive behaviors and sexual relationships. Thus, for up to 8 non-marital relationships that lasted 30 days or more since January 1986, the study collected information on pregnancies that occurred within each relationship, and the planning status and outcome of each (up to 3). It also collected information about the partners' demographic characteristics, and about sexual and contraceptive behavior in the relationship. The study cast a wide net in looking at relationships, including nonsexual relationships, nonmarital sexual relationships, and marriages and cohabitations. Some studies are underway using these data, and they may provide a valuable resource for understanding links between relationship characteristics and fertility risk. These data are unique because they focus on an older population of men that has received insufficient study in the past.

Panel Study of Income Dynamics (PSID). The PSID is a longitudinal study following an initial cohort of 5,000 families and their offspring since 1968. In 1997, the PSID will administer a Parent-Child Supplement, to include approximately 3,200 children under age 12. Respondents will include up to two children from about 1900 households, the primary caregiver of each child (e.g., biological, adoptive, step, or foster mother), the other caregiver of each child (e.g., the spouse of the primary caregiver or grandmother of the child), absent fathers, elementary or middle school teachers, preschool or day care teachers, in-home day care providers, elementary or middle school administrators, and preschool or day care center administrators. Priority rules have been developed for defining order of inclusion in each of these categories. The different respondents will provide information through assessments, time diaries, and questionnaire booklets about the child and the household. If the biological father lives outside the household, the PSID will attempt to interview him, although it is not yet clear how difficult it will be to locate the absent fathers. In any case, the sample of absent fathers is likely to be small. The primary caregiver is also to be asked a battery of questions about the child's involvement with the absent father, so some data will be available from this perspective.

Survey of Income and Program Participation (SIPP). SIPP is a longitudinal household panel study conducted by the Bureau of the Census, with short- and long-term longitudinal components. It includes modules on child well-being, child care, child support, as well as information on income contributions and reciprocity within the household and both to and from non-household members.

Surveys Conducted by the Bureau of Justice Statistics (BJS). BJS sponsors numerous surveys of inmates in jails, prisons, halfway houses, or probation agencies. Surveys such as the Survey of Adults on Probation (SAP), the Survey of Inmates in State Correctional Facilities (SISCF), the Survey of Inmates in Federal Correctional Facilities (SIFCF), and the Survey of Inmates in Local Jails (SILJ) generally achieve high response rates (with the exception of the SAP). Although most of the content is focused on criminal justice issues, survey items also include basic demographics, parental characteristics, questions about alcohol and drug use, and similar topics. More than ninety percent of inmates are male, and the great majority of these men are fathers. Questions about father involvement ask about the children's living situation before incarceration and currently, contact with children, and sources of economic support.

Methodological Issues

This section provides a review of several methodological issues related to gathering information on fathers and fatherhood. These issues have differential impact on studies of varying design, and so they are not insurmountable or uniformly challenging in all the studies that may be recommended for examining fathering. The methodological issues are loosely clustered into three groups: population identification, data collection procedures, and study designs. The impact of these issues for different types of studies is explored in more detail in the following section.

Population Identification.

Undercount. Fathers who are not located or are not included in the survey process at all are undercounted in large scale sample surveys. This includes the traditional undercount by the Decennial Census that affects the coverage of the sampling frame. Undercount rates are higher for men than for women, and for minorities than for whites and Asians. The undercount varies by age and race combined, ranging from 7 to 17 percent for black men. It is also related to household structure and relationships. Undercount rates are higher for unrelated persons, such as roomers, roommates, and men who are not married to the household respondent. It also appears to be greater for never-married fathers than for previously-married fathers. In addition, men in the military, prisons, jails, or other institutions are typically excluded from household surveys.

One promising technique for reducing the undercount in household surveys is to use expanded rosters with multiple probes. For example, the Census Bureau undertook an experimental "Living Situation Survey" in 1993 (Sweet, 1994) in which it oversampled minorities and renters, two sources of the undercount of fathers. The household roster section included a battery of roster probes. The first question was, "Who stayed here last night?" Another 3 percent of usual residents were elicited by the question, "Who lives here but didn't stay here last night?" For occasional rather than usual residents, a useful probe was, "Since [reference date], who lived or stayed here for one or more nights?" The survey identified an average of 1 additional person per household, and the gains were particularly large for black and Hispanic males age 18 to 29. Cantor and Edwards (1992) also used a similar list in experimental rosters trying to reduce within-household undercoverage in SIPP. (see Appendix L).

Other studies are planning dual rosters. As noted, the NLSY97 will include a household roster and a second roster of relevant individuals who live elsewhere, such as non-custodial parents, non-resident children, and so forth.

In future studies, it might be useful to develop a typology of living arrangements. Not only would this help with the creation of a list of terms and probes, but it also would move survey researchers beyond thinking in terms of traditional families. Work by anthropologists, such as Ruth McKay (McKay, 1993), would be useful here (Martin and de la Puente, 1993). Particularly important would be estimating the proportion of households falling into each category. This information would help in designing samples. Not requiring full names on rosters might improve coverage (Kearny, Tourangeau, Shapiro, and Ernst, 1993). Another technique which could be used in a limited way is network analysis. It is a useful way to explore extended families and/or complicated living or economic dependency arrangements (Knoke and Kuklinski, 1982). Unobtrusive observations of living patterns also might be useful.

The use of administrative records will help reduce not only undercoverage but also undercounting. Household members not identified by respondents can be found through these records. Absent family members, especially those institutionalized or homeless, also could be identified. Matches to Census records, already being done by Census and BLS, may be another way of estimating the number and types of people missed in our surveys. This will provide some estimate of the magnitude of the problem relative to the population as a whole (Couper and Singer, 1996). Different administrative lists can be used in conjunction with area frames in constructing multiple frame designs (Groves, 1989).

Unit nonresponse, especially in cross-sectional surveys, can result in both undercoverage and undercounting. The number and characteristics of household members, including absent parents and children, will not be known. To the extent these households are not missing at random, estimates of counts will suffer.

The interviewer's role in undercoverage and undercounting should be addressed. Vacancy checks could be conducted not only to find missing households, but also to evaluate interviewer reports (Clark, Kennedy, and Wysocki, 1993). The eligibility rates (both in terms of households and persons) obtained by individual interviewers could be compared to one another or to historical estimates. Techniques for persuading reluctant households should be explored, including ways for interviewers to introduce themselves and the survey to respondents (Groves, 1989). If the interviewer is effective at representing himself or herself and the survey, it will go a long way toward reducing the suspicions or concerns of reluctant respondents. In addition, the effects of type of nonresponse, noncontact versus refusal, need more study (Groves, Cialdini, and Cooper, 1992).

One way to reduce the effects of undercoverage and undercounting is weighting adjustment; however, this assumes a model which is not sensitive to nonignorable nonresponse (Raghunathan, Groves, and Couper, 1996). Not only do these models incorporate demographic information based on geography, but they also take into account the type of nonresponse. This work and other work being done jointly by Census and BLS also consider another area for research-- the effects of different patterns of longitudinal nonresponse.

Underreporting. Absent male parents tend to underreport their parental status to a large extent even though they are included in the survey interviews. In one survey, the National Survey of Families and Households, this accounts for more than half of the missing fathers (McLanahan and Garfinkel, 1996). Disparities between the number of women with previously-disrupted marriages who have children from those marriages at home and the number of men with previously-disrupted marriages with children living elsewhere are often great (Cherlin, Griffith, and McCarthy, 1980). Some studies have found the shortage of non-resident fathers to be largely confined to African Americans, though the factors contributing to this shortage include institutionalization (27 percent), undercount (53 percent), and underreporting (20 percent) (Sorensen, 1996). Beyond underreporting of fatherhood itself, there is also an issue of misreporting child support payments. In unmatched samples, it appears that fathers are much more likely to report giving child support than mothers are to report receiving it (Seltzer and Brandreth, 1994). But in matched samples, when both parents knew the sample was matched, reports were sometimes similar, but not always so (Braver, Fitzpatrick and Bay, 1991; Braver, Wolchik, Sandler, Fogas, and Zvertina, 1991; Smock and Manning, 1996; Sonenstein and Calhourn, 1990). In most surveys, the percentage of non-resident fathers who report providing support is substantially greater than the percentage of resident parents who report receiving it. The extent to which the undercount of adult males interacts with this problem is not known; some researchers presume that fathers who are included in studies are more likely to be paying support, leading to an overstatement of the frequency of providing support. (see Appendix K)

Underreporting of children and of other sensitive behavior may be reduced through technological advances in survey research. For example, the ACASI technology mentioned earlier has boosted reports of abortion in tests of women conducted by the National Center for Health Statistics; and so did paying a modest incentive (Mosher, Pratt, and Duffer, 1994). The ACASI interview involves giving the respondent the interviewer's laptop and a set of earphones. The respondent hears questions on the earphones which also appear on the screen. She or he then answers the questions by pressing a key on the laptop, so that the interviewer cannot hear or see what she is doing. In a pretest in 1993, 14 percent of women who received neither a payment nor the ACASI interview reported an abortion. Twenty-two percent of those who received a $20 payment but no ACASI reported an abortion. Twenty percent of those who received the 10 minute ACASI interview but no payment reported an abortion. And 30 percent of those who received both the $20 payment and the ACASI interview reported an abortion. Technology such as this should be tested and developed further for men.

Changing Family Structures. To date, most large scale sample surveys have reflected more traditional family models with parents living in marital situations within the same households or parents living singly. It has been less common for surveys to take into account multiple family forms, including cohabiting, unmarried couples; single parent families with nonresident, never-married fathers; families with other relatives playing important parenting roles in children's lives; and families with extended networks beyond households. During the life cycle of a family, the family type may well change with important consequences for the children. Current means of collecting information on family structure and relationships between family members, fathers outside households, and family networks are inadequate to help researchers and policymakers understand the complexity of fathering roles as they have evolved.

In multi-family households, CAPI methodology allows for creating spinoff cases with new family rosters, and this is now used in CPS. The same technique is available in CATI (Tucker, Casady, and Lepowski, 1991), although it can be more cumbersome. Spinoff cases could be created for parents or children not living in the household. These people would be linked to the household by special relationship codes in the original roster. Spinoff cases might also be used in longitudinal surveys to follow movers, similar to what is being done in SIPP.

Research to develop or improve any of these procedures will require large and/or targeted samples. Either census block or tract data might be used, but a more efficient method would be administrative records. The use of administrative records, however, raises issues of confidentiality and privacy.

Sampling Strategies. Although research on fathers and fatherhood should focus on all fathers, researchers and policy makers are interested as well in subsets of fathers. Frequently interest is focused on men who are relatively rare in the population, even though they are of increasing interest and may even be increasingly common. This would include, as examples, absent fathers in different subpopulations (e.g., by race or by age of children), fathers in different employment statuses, or stepfathers. They may be "rare" because they are a small percentage of fathers, or because fathers may exist in a particular status for only a relatively short time in their own or in the lifetime of their family. Problems of adequate sample size are exacerbated in analyses that need to cross-classify by race/ethnicity, socioeconomic status, age and gender of the child, or various configurations of families. Sampling strategies that sample children or sample parents, and that include institutionalized populations have different strengths and weaknesses. If children are sampled directly, coverage of children should be improved with concomitant reductions in coverage bias. Since most children live in households, there is nearly always an adult who can report on the child's contact with present and absent parents. Even proxy reports would provide at least minimal information. However, sampling parents may lead to higher rates of successfully locating and interviewing absent fathers directly, without relying on obtaining locating information in the child's household. Direct interviews with absent fathers could reduce bias in reports of certain types of information, although it is not yet fully established what types of information are most subject to such biases. Combined sampling approaches may hold the most promise for in-depth studies of parenting, although the ramifications of these for study design have not yet been fully explored.

One of the basic problems is the large sample size needed to arrive at an eligible sample which can provide enough statistical power. Either this will require money or the ability to piggyback on other research or find other cost effective approaches. In the case of a large, dedicated sample, mode of administration will be an issue, and it is unlikely that a personal visit will be practical. A telephone survey will not include those without telephones, unless a dual-frame design is used (Groves and Lepkowski, 1985). A mail survey would be difficult to administer, and the response rate would be low. Research which investigates the cost and error implications of the choice of mode would be useful (Groves, 1989). More efficient telephone sample designs have been developed in recent years which take advantage of list-assisted methods and matching to census public use files and administrative records, and these should be explored (Mohadjer, 1988). These new designs would be particularly useful for the targeting of specific subpopulations to reduce the cost of screening for eligibility.

The alternative of using ongoing surveys also may be attractive. Since these surveys vary according to mode and sample design, they could be used for different purposes. The new NLSY design will screen households for children and identify not only present but also absent parents. The National Immunization Survey has hundreds of thousands of screened numbers with some information about the households found. Many of these households have not been burdened with long surveys (Abt Associates, Inc., 1994). It is possible that a CPS supplement could be used for gathering information on fathers and linked to the other CPS data for the households. If the American Community Survey goes into production, it might serve as a data collection vehicle on a periodic basis.

Another problem which must be faced is the following of movers in longitudinal surveys, and such an operation will be important for measuring long-term outcomes. Much can probably be learned from the NLSY, SIPP, and other surveys which attempt to track respondents across significant periods of time. For example, SIPP has issued a memorandum detailing the most effective tracking techniques (Allen, 1994). However, they have not exclusively focused on fathers, a group which might present a particularly difficult challenge. Again, administrative records might be explored as a way of following families that separate. Finally, there are a number of weighting issues to consider. How are families which split apart weighted, and attrition in the longitudinal surveys will require using methods for censored data (Little and Rubin, 1987; Wiley and Sons; and Amemiya, 1985).

Within household sampling is of some concern if more than one child is involved or there are children with more than one father. The actual selection may not be difficult, but issues might arise if the person selected does not actually live in the household or is uncooperative compared to others in the household. Furthermore, a parent actually could have children from different generations, and the relationships may be very different.

Institutional Populations. Typically, large scale national surveys of the population are of the civilian, noninstitutionalized population only. Because of the particular issues being addressed in the search for improved information on fathers, it is clear that a large share of men excluded by these approaches are fathers (Harlowe, 1996). To fully understand the roles that men play in their children's lives -- and the types of influence they may have intentionally or otherwise -- it is important to examine better ways to obtain information from men in institutions and in the military population.

Data Collection Procedures:

Response Burden. Collecting information on or from fathers clearly increases interview time. There is a strategic issue as to which surveys should be affected and how, since response burden is a substantial issue in many large scale surveys that affects both their feasibility (from a financial and operational perspective) and the quality of the information provided when respondents tire. This problem very quickly reverts to what information is required and what are the best ways to obtain it, but it is also a fundamentally methodological issue regarding how to balance subject matter among the most appropriate, effective, and efficient surveys of differing designs and content.

There are two types of respondent burdens to face, but it is unclear how these will play out in terms of surveys of fathers. Furthermore, both types are affected by mode. The first is the burden associated with the difficulty of the task. This would include the length of the questionnaire, how many respondents are interviewed, and how difficult the questions are to answer (Groves, 1989; Tucker, Casady, and Lepowski, 1991; Schuman and Presser, 1981; Heberlein and Baumgartner, 1978; Herzog and Bachman, 1981; Sudman and Ferber, 1974; Silberstein, 1993; Dillman, Brown, Carlson, Mason, Saltiel, and Sangster, 1995; Herriot, 1977, Hermann, 1993). What effects these factors have on data quality will depend on the mode of administration (deleeuw and van der Zouwen, 1988; Groves, et. al.; Tucker, Casdy, Lepowski, 1991; Groves, 1989; Wiley and Hochstim, 1967; Rogers, 1976; Warriner, 1991; Sudman and Bradburn, 1973; Morgenstern and Barrett, 1974; Krosnick and Alwin, 1987; Miller and Dowenes-Le Guin, 1989; Conrad, Brown, and Cashman, 1993; Silberstein, 1989; Mullin, Cashman, and Straub, 1996; Hermann, McEvoy, Hertzog, Hertel, and Johnson). For instance, surveys done in person have the potential to be more burdensome because they can be longer and involve more complicated tasks.

In this case, burden may be tied closely to the extent of recall required, and recall has been a subject of intensive study. The saliency of experiences will be related to the ability to recall them, but the way the questions or memory probes are ordered and formatted also can matter (Schuman and Presser, 1981). The difficulty of the task also is affected by whether data collection will recur (Kaspryzk, Duncan, Kalton, and Singh, 1989). Recurrent data collection can be quite burdensome. If the collection is done too often, the respondent is likely to become annoyed. Infrequent collection might avoid this problem, but it can make the recall task more difficult and recontact will be more problematic. The more infrequent the contact, the longer the survey might become.

A considerable amount of research is needed to develop less burdensome data collection instruments for fathers and children. This would include the level of difficulty associated with different questionnaire formats under various modes. Research should be done on the problems associated with recall of family history and the usefulness of available records in the household. The feasibility of inserting and removing modules of questions in both cross-sectional and longitudinal surveys should be examined. The optimal frequency of data collection for recurring surveys should be determined.

The other concern is the burden accompanying sensitive items (Colombotos, 1965). Questions about income, sexual practices, drug use, and some health conditions can be very sensitive to some respondents. In addition, information about family relationships, critical in this case, is often difficult to obtain from respondents. Mode of administration is important here also in that distance from the interviewer can affect the respondent's feelings of privacy and confidentiality. Methods of reducing the burden associated with sensitive items have been investigated. These include randomized response techniques, (Groves, 1989) self-administered survey instruments, (Turner, Forsyth, Reilly, and Miller, 1996) and question order (Groves, 1989).

Reporting. For understanding different aspects of fatherhood and fathering, it may be more desirable to use proxy- or self-reporting. The trade-offs between the two fundamental ways of obtaining information are related to cost, accuracy, reliability, and accessibility to the respondent. While in some cases proxy responses provide entirely adequate information, in others information can only be obtained directly from the father who is being studied. Further research is needed on which areas previous partners or children are able to serve as proxy respondents and which ones require the additional expense of locating and interviewing the fathers to achieve the needed accuracy and reliability. When fathers must be contacted directly, there may be serious problems with accessibility of the respondent, so that targeted studies may be designed to gather information on a more limited sample.

The central question to ask about proxy response is whether it is less accurate than self response. It seems that it should be in most cases (Jones, Nisbett, 1972, Lord, 1980). However, empirical work, which is difficult to do, has shown this to not always be true. Some have speculated the relationships among family members will have an effect (Groves, 1989; Mathiowetz and Groves, 1989; Moore, 1988). The other reason results on this question might vary is that the accuracy of proxy reports could depend on the subject of the inquiry, the questionnaire strategies used to obtain the reports, or whether the proxy has first-hand experience concerning the information being sought (Miller and Tucker, 1993; Tucker and Miller, 1993; Kojetin and Miller, 1993; Cash and Moss, 1972; Kojetin and Mullin, 1995; Mullin and Tonn, 1993; Bickart, Blair, and Menon, 1994;

Schwarz and Sudman; Menon, Bickart, Sudman, and Blair, 1995; Kojetin, Burnbauer, and Mullin, 1995; Kojetin and Jerstad, 1997). Nevertheless, in the case of men's reports of their children living elsewhere, it seems clear that there is indeed underreporting.

Administrative Records. For targeted topics, it may be feasible to obtain some information from administrative records. These can be linked to sample survey data to yield some more specific estimates. However, the usefulness of administrative records is highly dependent on the topics being studied and the availability of information in different records systems. In any given application, researchers must investigate whether access to records can be obtained under the auspices of the study, what information is available, the quality of the information in the system (primarily in terms of accuracy and completeness), and how such information might be linked to other data being obtained in the study.

Mode of Data Collection. The consequences of gathering data using different modes (mail, telephone, or personal interviews; degree of computer-assistance; observational studies; diaries; or other modes) are closely related to the type of study being undertaken. However, there is still considerable latitude in the designs of some research. Most studies of the effects of interviewing mode have been made with the more typical respondent--the mother or the child. Consequently, further research is needed into how these modes may influence data quality and response rates.

Study Design:

Questionnaire Design and Measurement Issues. There are a variety of issues related to the quality of information obtained from mothers and fathers about the role of fathers in children's lives. If either or both parents are interviewed, most surveys currently ask them both the same questions. Researchers are not yet certain what to ask fathers, because studies have not yet pointed to any distinctive understanding of fathers' roles. However, since researchers do acknowledge that fathers may have unique ways of interacting with their children, it is clear that such relationships cannot be discerned using traditional questions. Further research is needed on what aspects of fathering are important to men, what aspects of fathering are important to children, and ways to improve the quality of information collected. Specifically, the stability, reliability, and validity of survey responses are likely to be increased by improving the questions asked. Another measurement of critical importance is the time reference used in sample surveys. This also has important implications for the quality of data obtained from respondents.

New questions will be needed to assess what fathers contribute to their children, both emotionally and physically. Other questions will focus on the ways fathers and children view their relationships with one another. Some questions will be subjective, but many should be behavioral measures. Types of questions which could be used are attitude scales, behavioral frequency measures, behavioral checklists, and open-ended items (Poister, 1978).

Whatever the types of questions used, they must be thoroughly tested. This research is important to ensuring ultimately data quality. The identification of question wording and order effects is becoming commonplace, and the methods used in this area are growing (Groves, 1989; Schwarz and Sudman, 1993; Conrad and Brown, 1995; Esposito, Campanelli, Rothgeb, and Polivka, 1991; Forsyth, Lessler, and Hubbard, 1992; Turner, Lessler, and Gfroerer,; Martin and Polivka, 1995; Menon, 1994, Schwarz and Sudman; Willis, Royston, and Bercini, 1991; Tanur, 1992; Sudman, Bradburn, and Schwarz, 1996).

This work also examines problems of respondent understanding, memory, and recall, which will be of central importance in the development of data collection instruments concerning fatherhood. Small field and laboratory tests will be necessary, as well as the field observation of large-scale tests. Testing will involve think-aloud interviews, respondent and interviewer debriefings, and interview monitoring with behavior coding. Administrative data can also be used to measure data quality (Moore and Marquis, 1989).

Research should be undertaken to develop methods which overcome problems of memory and recall. Some research has already been done in this area (Anderson and Conway, 1993; Schwarz and Sudman, 1993; Burt, Mitchell, Raggatt, Jones, and Cowna, 1995), but more is needed as it relates to the experiences of fathers and children. One method which could have some merit is time-use diaries (Juster and Stafford, 1985). Respondents also might be asked to do narrative histories of family relationships which could be content analyzed (Dillman, 1978; Groves, 1989; Groves and Kahn, 1979). Other qualitative methods will be discussed under recommendations number 7,.below.

Questionnaire design is dependent on the mode of data collection. For instance, long lists requiring flashcards cannot be used in telephone surveys, and lengthy narratives cannot be collected over the telephone. Question order effects will differ by mode, and the ability to obtain answers from multiple household members will be limited with both telephone and mail surveys. Literacy is a problem in mail surveys, but privacy and confidentiality is better preserved, unless computerized self-administered surveys are used. Thus, the effects of mode on surveys of fathers will need to be considered, and the information to be collected should be fitted to the mode.

Finally, multiple measures from multiple sources will be needed to ensure the quality and/or accuracy of the data. This is true for two reasons. As with most social research, the measures used can have a considerable amount of nonsampling error, so it is better to use multiple measures of the same concept and arrive at a combined indicator by "triangulation," also known as the multi-trait/multi-method approach (Alwin, 1974; Campbell and Fiske, 1959; Jick, 1979; Tucker, 1992). The other reason it is important, especially in this case, is that different respondents may give conflicting answers or, at least, express different points of view. A more accurate picture is likely to be obtained by asking the same questions to several family members and/or gathering data from outside sources such as education or health providers and administrative records.

Linking Quantitative and Qualitative Designs. Enhancing quantitative survey designs with qualitative research methods has the potential to enhance knowledge in at least two ways. First, researchers can address many of the methodological and substantive issues that are not yet completely or even well understood using qualitative techniques. Such smaller scale studies frequently provide approaches to address issues in large scale quantitative studies. These studies can help to develop topics to study, question wording, or survey design, as a few examples. Secondly, linking methods can greatly enrich what can be learned by either approach taken alone. Combined approaches provide a much more rounded view of social phenomena by calling on the strengths of each (U.S. Department of Education, National Center for Education Statistics).

The fact is that quantitative data, especially when presented only at the aggregate level, often masks or even misstates important relationships (Copeland and White, 1991). Thus, qualitative methods are needed to inform and guide quantitative research. Fortunately, the last decade has seen one example of the effective use of both methodologies--the use of cognitive methods in survey research (Fienberg and Tanur, 1989; Forsyth, Lessler, and Hubbard, 1992; Nargundkar and Gower, 1991; Turner, Lessler, Gfoerer, and Tanur, 1992; Sudman, Bradburn, and Schwarz, 1996). This combination was used very effectively in both designing and analyzing the Supplement on Race and Ethnicity to the Current Population Survey (Cannell, Oksenberg, Fowler, Kalton, and Bischoping, 1989; McKay and de la Puente, 1995; McKay, Stinson, de la Puente, and Kojetin, 1996; Tucker, 1996; Esposito, Campanelli, Rothgeb, and Polivka, 1991; Willis, Royston, and Bercini, 1991; Conrad, and Brown, 1995; Peterson and Schechter, 1995) Qualitative methodologies from other fields, such as anthropology, also have been used (McKay, 1993), and work is ongoing to include other disciplines like linguistics.[2]

Many lessons have been learned from these experiences. One of them is that qualitative methods are useful for designing questionnaires that interviewers can administer more easily and that respondents can understand. These techniques also can help explain seemingly conflicting or confusing findings from quantitative research. Several limitations, however, have already been encountered, and research is beginning to deal with these. One problem with qualitative research is that the methodology is less codified. This problem has been examined (Tucker, 1996), and more rigorous methods are being developed (Conrad and Blair, 1996; Tucker, 1996; King, Keohane, and Verba, 1994; Yin, 1989). Basically, qualitative research still must be judged against the same scientific standards as quantitative research. At the same time, qualitative research should not be dismissed out of hand if its standards are high. Therefore, in studies of fathers, the two should be used together, and the results should be judged with the same ruler. Given, the complexity of the problem, both will be useful.

---

[2] Second Conference on Cognitive Aspects of Survey Methodology, June 1997.

Longitudinal or Cross-sectional Designs. Whether a longitudinal or cross-sectional design is selected is dependent on the kinds of information that are being sought. While longitudinal designs tend to be thought of as more expensive, they may be more cost-effective through providing richer information with a smaller sample than may be achieved with repeated cross-sectional studies.

Population Diversity. Just as it may be inadequate to study parenting by asking the same questions of both mothers and fathers, it also may lead to inadequate understanding of important issues if studies do not account for the diversity in the population. The rich cultural, ethnic, racial, and linguistic diversity in the population of the United States means that studies have to be carefully designed to elicit information from different groups. In studies that are characterized by uniformity of administration to all respondents (such as large scale sample survey research), this means that conscious compromises will need to be made to develop items that are understandable to a wide variety of respondents. In other types of research, special, more targeted, approaches may be taken when dealing with different populations; or specific studies may be developed for different groups. The challenges of population diversity relate to the content of the study (different aspects of fathering may carry different levels of importance), conceptualization of the content (different groups may have varying perspectives on the same issues), and structure and wording of questionnaires or interview templates.

Measuring Time Use. Assessment of parent-child interaction often rests largely on reports of children's time use. There are several ways of assessing how much time and in what activities parents and children engage. The most accurate way to collect such data would be through observation. However, such methods are costly, intrusive, and limited in the amount of a day that can be covered. Another accurate way to collect information is by time sampling, in which respondents write down the activity they are engaged in whenever a beeper sounds. This methodology is also costly, intrusive and limited. The most common method in survey research is to ask parents directly how much time they spend in certain activities, such as reading to their child. While simple and widely used, this method is known to be biased. First, it is subject to social desirability bias. Parents will report more time spent on desirable activities (such as reading) than on less desirable ones. Second, there is no baseline against which to check consistency, validity, or reliability. Thus times have been shown to be quite inaccurately reported (Juster and Stafford, 1985).

In contrast, substantial methodological work has established the validity and reliability of data collected in time-diary form (Juster and Stafford, 1985). The instrument for assessing time use is a "time diary," which is a chronological report by the child and/or the child's primary caretaker about the child's activities over a specified recent 24-hour period, beginning at midnight (who the reporter is depends on the age of the child). The time diary is interviewer-administered and asks several questions about the child's flow of activities, such as what they were doing at that time, when the activity began and ended, and what else they were doing (if they were engaged in multiple activities). The Child Development Supplement to the Panel Study of Income Dynamics also added two questions: "Who was (child) doing that with?" And "Who else was there?" These added questions, when linked to activity codes such as "playing" or "being read to" provide unbiased details on the extent of parent/child one-on-one interactions and availability of the parents. The advantage of such questions is that total time in one day has to add to 24 hours. Consequently, while individual times may be slightly inaccurate, the times are consistent with one another. The disadvantage of the time diary is that it represents only a sample of children's days. Thus while it accurately represents the activities of a sample of children on a given day, it is only a very small sample of a given child's days and, as such has limited reliability. To improve reliability, most time-use studies obtain at least one weekend and one weekday assessment, and many also obtain multiple samples over a period of time, such as a year.

Since the data collection format is open-ended--an advantage for avoiding biases toward "good" activities and away from "bad" activities but a potential pitfall for proper interpretation of the data--precise, clear, and well-focused definitions of activities are vital. Fortunately, the 1975-1981 Time Use Study has paved the way in terms of guidelines for coding children's time-diary reports (Juster and Stafford, 1985). Working with several child development experts and time-use experts in a number of disciplines and representing a wide range of countries and cultures, Hill, Stafford, Juster, and colleagues in the 1981 follow-up in the 1975-1981 Time Use Study spent considerable time and effort designing a time-use methodology appropriate to children (Hill, Stafford, Juster, and colleagues, 1975-1981). The methodology is not onerous. Researchers have found that parents of young children enjoy working with their youngsters to provide the children's time diaries, which take about 15 minutes per child per day, and can adequately represent the child's day.

How Should New Data Collection Be Undertaken?

There are two issues that are fundamental for the research community to consider in designing studies to obtain information on fathers: (1) Should a new study be initiated or would an add-on to an existing study be more appropriate? (2) Should the study be conducted by Federal statistical agencies or as a privately sponsored effort? While it is clear that the right directions depend in part on the nature of the study, some guidance about factors to consider when addressing these questions may be useful.

New vs. Supplemental Studies. In the past, new ideas may have readily generated entirely new studies. However, concerns about financial support for social science research now more often lead to consideration of ways to piggyback onto existing studies.

There are, however, advantages and disadvantages to either approach. New studies have a distinct advantage in that the designers and sponsors of the study can exercise substantially greater latitude in defining the scope of the study. As a result, they are better able to focus the entire study on the topics of interest rather than having to fit components in around an existing questionnaire or other information collection. Similarly, they have greater control over the research design and study operations, within cost constraints, so that these aspects can be tailored to their needs. They have the disadvantages of higher costs and longer start-up time that unavoidably occur with a new program.

Supplemental studies address that disadvantage directly, typically being of lower cost and with a faster start-up time. Often, the sponsor will only have to contribute marginal costs, which may be minimal, to obtain additional information. Additional information that is likely to be related to the topic of interest will be obtained at no cost to the sponsor because it is included in the base survey. However, the lack of control over the design of the survey and the sample introduce potentially severe disadvantages. The sponsor may not have control over question wording, although this problem is more likely to affect those items already in the study than those being added. Lack of control over survey operations and data processing can hinder the utility of the results, insofar as they influence the outcomes of the inquiry or the timeliness of reporting. The latter is a problem particularly if the primary data are processed with higher priority. In a related issue, the context of the independent study may introduce response or nonresponse bias if its content or design are not compatible with the goals of the sponsor. Finally, although the cost advantage is attractive, this approach means that the sponsor depends on another organization to carry out the survey, to obtain funding for the core, and to produce the data. It is not entirely unusual for such arrangements to fall through when funding unfortunately becomes unavailable for the sponsor of the core survey.

Federal vs. Privately Sponsored Studies. Studies that are conducted by or for the Federal government under contract have different strengths and weaknesses than those of studies that are fully privately sponsored or that are conducted under a grant from the Federal government. However, in recent years, these distinctions have become increasingly blurred, as funding sources for Federal statistical studies have declined and the quality of large scale research in the private sector has improved. Nevertheless, there remain significant differences between these two types of studies.

While Federal studies historically have been thought to have more secure funding sources once the government committed to the survey, this may no longer be the case in the current budget climate. Federal surveys do have a small advantage in easier access to national sampling frames that may be more difficult to construct in the private sector. Federal researchers are constrained to create public use analysis files for researchers to have equal access to, and this clearly enhances the value of the study for the broad research and policy community. Federal agencies typically provide metadata, describing the characteristics of the data, which is highly important for more informed use of the data. Consistent with these last two aspects, publicity about the availability of the data is typically seen as a part of the survey process, thus enhancing access. Despite concerns about response burden, the Federal government still tends to achieve substantially higher response rates than are achieved in privately-sponsored surveys.

Federal surveys also have disadvantages, many of which stem from a generally long lead time from conceptualization to development to data production and analysis. Funding is typically difficult to secure initially. The clearance process conducted by the Office of Management and Budget adds considerable time to the survey process, and can place constraints on the response burden and content of surveys that can restrict the topics that can successfully be studied. In certain studies, association of a study with a particular agency may introduce response bias. Finally, whether because of elaborate designs or operational inefficiencies, Federal studies tend to be somewhat costly.

Privately sponsored studies or studies conducted with Federal grants avoid some of these disadvantages. The researcher may have more latitude in defining the topics of study, and so may be able to address more sensitive issues. These studies show a clear advantage in that less time is typically required to move from conceptualization to data production. Researchers can more readily adopt innovative techniques, that may (or may not) prove useful from a wide variety of perspectives. And, as noted above, such studies may be designed to serve more precise needs and they may, as a result, to be less costly.

On the other hand, privately sponsored studies are less likely to provide timely public use data files to allow the broader research community access for analysis. The degree of collaboration is more dependent on the individual principal investigators, as there is less motivation to do so from the perspective of the public good. Finally, the care and attention focused on technical issues of all sorts varies considerably in such studies. This disadvantage can have serious and broad consequences for the quality and utility of the data.

Recommendations

Let us now summarize the implications of the research activity we have reviewed for future research on fathers. The state of knowledge about how to study fathers is not adequate to prescribe a single set of optimal procedures for all studies; and we do not wish to create a new methodological orthodoxy. Nevertheless, we believe that the following implications can be drawn.

1. ***Include fathers.*** Fatherhood is a complex aspect of our society that is inadequately understood. The knowledge base is insufficient to inform policy makers about the roles that fathers and mothers play in our families and our communities. Issues extend beyond the most commonly expressed concerns about absent fathers. Thus, national surveys need to provide a more accurate and in-depth profile of fathers to

improve this understanding. Two surveys in particular should consider including fathers as interviewees – the Early Childhood Longitudinal Survey and the National Survey of Family Growth.

Studies of what non-resident fathers do should include non-resident fathers. Although this precept might seem self-evident, its adoption would mark a major change in research design. Until recently, an inordinate proportion of studies of fatherhood have attempted to measure the importance of absent fathers solely by examining households in which fathers are absent. In most of these studies, little or no effort was made to contact absent fathers. This literature on father absence has been useful but it has its limits. Studies that dichotomize all fathers into "present" and "absent" may miss important aspects of a child's continuing relationship with a non-resident parent. Studies that do not contact the absent parent are inherently limited in the understanding they can provide about why fathers may be relatively uninvolved with their children. Future research on non-resident fathers should move beyond merely studying their absence.

2. ***Improve household survey methodology.*** The standard household survey methodology is critical to our understanding of fathers because it is the only methodology that has the potential for identifying the entire universe of resident fathers and nearly all nonresident fathers. A very small share of fathers are outside of this sampling frame. Part of the underrepresentation of fathers in household surveys is due to an undercount of fathers who are tenuously attached to households and part is due to underreporting by men who are interviewed but who do not disclose that they have children living elsewhere. Both of these issues can and should be addressed.

3. ***Add expanded household and extra-household rosters to existing surveys.*** Standard rosters in household surveys are not adequate to resolve the problems of underrepresentation. Experimental surveys have increased their coverage of underrepresented groups of fathers by using an expanded set of questions and probes. Existing surveys should test these questions and probes along with their standard rostering techniques. Follow-up interviews should be conducted with a subset of these individuals to ascertain who is not being interviewed. Some surveys are also obtaining extra-household rosters of important family members who live elsewhere, such as non-resident parents and non-resident children and attempting to conduct follow-up interviews with these individuals. Further study of these individuals may be desirable.

In-depth studies (particularly long-term longitudinal studies) should carefully consider whether including fathers as interviewees would not improve the utility of the database. The Early Childhood Longitudinal Study of the National Center for Education Statistics, in particular, should make every effort to include a father supplement at some point in the study. This study, currently under development, could provide important information about children's development in relation to father involvement that could have important policy implications. Some effort is needed to include at least correctional institutions in household surveys to fill out the picture of absent fathers. The typical exclusion of men in institutions leads to a distorted view of how families function in our society.

4. ***Develop questions that are relevant to fathers and result in accurate responses.*** Unlike the well-tested interview protocols for female fertility and family formation, protocols for surveys focused on fathers are not yet well-developed or standardized. It is not wise to merely ask fathers a set of questions about parenting that parallels the set typically asked of mothers. Rather, new questions are needed to assess fathers' contributions to their children's development. Better measures of time use, such as time diaries, need to be incorporated in studies. Consequently, survey-based studies of fathers should include a substantial amount of development and testing prior to interviews with the sample. Exploratory methods exist that use laboratory and small field-test settings; these methods include think-aloud interviews, respondent and interviewer debriefings, and interview monitoring.

5. ***Improve procedures for asking sensitive questions.*** There is strong evidence that even when fathers are interviewed, they underreport the existence of their children living elsewhere. Mothers may also underreport non-resident fathers of their children. In addition, non-resident parents may be motivated to exaggerate the amount of contact they have with their children. For these reasons, it is important to employ, when feasible, improved measures for obtaining this information. We will note below that this is an important topic for further methodological research. Some promising techniques for survey research have been developed, such as audio computer self-administered segments of interviews. This is also a topic for which ethnographic studies are useful, both for identifying and studying fathers whose existence may not be revealed by a survey and for suggesting better ways to ask sensitive questions in surveys.

6. ***Reduce response burden.*** Other Working Groups recommend placing a high priority on obtaining detailed sexual, reproductive, and union histories for men. Yet the complexities of some men's sexual histories and reproductive careers means that for a subset of fathers, obtaining comprehensive histories could impose a substantial response burden. The very fathers who have the longest, most complex histories are often the group of greatest interest. It is not clear how much information can be collected from them: respondents may tire of remembering their histories at some point, or they may remember dates inconsistently. Therefore, a high priority for methodological research is to undertake studies of ways to reduce the response burden imposed by extensive histories. The life-history calendar is one way to reduce the burden; it seems to be clearly preferred by respondents to interviewer questions; and it seems to result in better quality data (Peterson and Schechter, 1995). But little methodological research has been conducted specifically on men. New studies that propose the collection of extensive sexual, reproductive, and union history from men should include development and

pretesting of ways to reduce the response burden of histories; and methodological research on the topic should be supported.

7. ***Conduct intensive observational studies.*** The gaps in our knowledge of what fathers (both resident and non-resident) do suggest the importance of smaller, intensive observational studies. For example, developmental psychologists conduct studies of children and their caregivers that involve direct observation, batteries of tests and assessments, and sometimes videotaping and subsequent rating of family interaction. Ethnographers conduct studies that use anthropological field work methods to describe and understand family interaction. These kinds of studies can provide valuable insights about fathering. They also can serve as hypothesis-generating studies that yield propositions about fathers that can be tested by subsequent close-ended questions in larger, more representative sample surveys.

8. ***Use supplementary and alternative sampling strategies.*** The standard household sample-survey methodology appears not to find many unmarried fathers. Other sampling strategies may sometimes be advantageous, either as supplements to household samples or as alternatives to them. The underrepresentation is particularly large for young men from minority groups, so other sampling strategies are particularly important for studies which focus on them Part of the underrepresentation is due to an undercount of fathers who are tenuously attached to households and part is due to underreporting by men who are interviewed but who do not disclose that they have children living elsewhere. The other sampling strategies include the use of administrative records to locate fathers who may no longer be involved with their children or whose names are not supplied by respondents in a household survey. They also include the addition of the incarcerated population and the military population when possible. In addition, they may include the development of alternative designs such as sampling on births at hospitals and interviewing both parents for the first time as soon after the birth as possible.

9. ***Recognize population diversity.*** The roles of fathers are embedded in larger family processes that can differ by class, race, and ethnic groups. Even within these groups there can be substantial diversity. Studies need to take this diversity into account. For example, studies of low-income groups where single-parent families and broad kinship networks are more common should consider the roles in children's lives of stepfathers, male kin, mothers' boyfriends, and other men . In addition, the roles of biological fathers may differ in family settings where extended kinship ties (such as to grandparents, aunts, or uncles) are present; consequently, studies of fathers should consider variations in family patterns.

10. ***Be careful of unobserved sources of bias.*** Despite the best efforts of researchers, studies of fathers can suffer from bias due to incomplete observation or to patterns of responses to questions. Fathers who are underrepresented are likely to have

some characteristics that differ from fathers who are represented. Data collected from mother-father pairs are, in principle, superior to data collected from only one parent; but, in practice, the difficulty of collecting matched mother-father reports can result in an underrepresentation of certain kinds of couples. Difficulties in attributing cause and effect can arise, particularly in cross-sectional studies. Studies of fathers should at the very least demonstrate that such problems, and their likely effects on analyses, have been considered. Research designs that can reduce bias should be used where possible. These include so-called panel data (longitudinal studies that can be used to control for unchanging unobserved sources of bias), studies of families that are affected by external assignments of fathers' roles such as military transfers or court orders, and statistical models that attempt to correct for incomplete and self-selected samples.

11. ***Carefully consider additions to existing data programs.*** It is not clear that completely new, large-scale studies should be undertaken to investigate issues related to fatherhood and fathering at this time. There is a great deal to be learned from working with existing survey mechanisms to expand the content and scope of studies in targeted, appropriate ways to address specific questions. Very little is understood on this topic to inform an emerging policy debate that encompasses far more than just the economic role of fathers. Consequently, important contributions can be made with small scale work and through expansions to existing studies of family conditions and processes. In this time of scarce resources for social science research, funds should be directed where they will provide the greatest insights. Thus, careful trade-offs need to be made in investing in new studies, major expansions of existing studies, and continuing some existing data collections as is in the interests of economy.

12. ***Conduct more methodological research.*** Lastly, we call for a program of methodological research on studying fathers. Because of the focus of past studies on mothers and on families that do not extend beyond the boundaries of one household, not enough is known about how to study fathers. We have briefly summarized the major developments in methodological research at this time. But many important facets of research on fathers need to be improved before we can be satisfied with the quality of current and future studies. These include the basic problems of finding non-resident fathers, of the underreporting of fatherhood among the men that are found, and of obtaining full and accurate answers about contact with children living elsewhere. Solutions involve sampling strategies, interviewing techniques, and questionnaire design. We need to know more about how to combine and analyze responses from mother and fathers (coresident or non-coresident) in data in which couples are the unit.

Furthermore, in order to construct informative surveys, we need to know more about what aspects of fathering are important and valuable. Questions of and about fathers should include more than just their economic circumstances and contributions to families. An expanded concept of fatherhood is essential. We doubt that this information can be obtained without detailed, observational studies of fathers and children of the type carried out by developmental psychologists and ethnographers. Technically speaking this is substantive, rather than methodological research; but it is a necessary precursor to the construction of adequate structured survey instruments. For example, other Working Groups note the importance of determining men's attitudes toward fatherhood and their motivations for having children. Although there is a psychometric literature on the reliability and validity of survey-based measures of attitudes and motivations, little research has been conducted on the population of interest. Qualitative studies would be particularly useful in order to determine the kinds of questions that close-ended surveys ought to ask.

Conclusion

There is much methodological work to be undertaken to help improve the quality and scope of information available on fathers and fathering. This paper has attempted to present some of the methodological issues, while at the same time suggesting some types of activities that could be undertaken immediately to improve the information base. Although it is always difficult to discuss methodology absent a clear concept of what content is needed, the dearth of information on these topics is so severe that some actions must be taken immediately. It is the sincere hope of this Working Group that the Fatherhood Conference will provide a strong foundation from both the substantive and methodological perspectives to support moving expeditiously to fill the data gaps.

References

Abt Associates, Inc., "The National Immunization Survey: 1994 Annual Methodology Report," (Still under review)

Allen, T. 1994. "SIPP: Results of the July and August mover questionnaires," Memorandum, Bureau of the Census.

Alwin, D. 1974. "Approaches to the interpretation of relationships in the multitrait-multimethod matrix." *Sociological Methodology* 1973-74. San Francisco: Josey-Bass

Amemiya, T. 1985. Advanced Econometrics, Cambridge: Harvard University Press

Anderson, S.J. and Conway, M.A. 1993. "Investigating the structure of autobiographical memory." *Journal of Experimental Psychology: Learning, Memory, and Cognition* 19:1-19

Babbie, E. 1989. The Practice of Social Research, Fifth Edition, Belmont, CA: Wadsworth.

Braver, S.H., Wolchik, S.A., Sandler, I.N., Fogas, B.S., and Zvetina, D. 1991. "Frequency of visitation by divorced fathers: Differences in reports by fathers and mothers." *American Journal of Orthopsychiatry* 61:448-454

Braver, S.L., Fitzpatrick, P.J., and Bay, R.C. 1991. "Noncustodial Parents' Report of Child Support Payments." *Family Relations* 40:180-185

Burt, C.D.B., Mitchell, D.A., Raggatt, P.T.F., Jones, C.A., and Cowan, T. M. 1995. "A snapshot of autobiographical memory retrieval characteristics," *Applied Cognitive Psychology* 9:61-74.

Campanelli, P. and Sturgis, P. 1996. "Collecting survey introductions: Initial results," Paper presented at the 7th International Workshop on Household Survey Non-Response, Rome, Italy.

Campbell, D.T. and Fiske, D.W. 1959. "Convergent and discriminant validation by the multitrait-multimethod matrix." *Psychological Bulletin* 56(2):81-105

Cannell, C. F., Fowler, F. J., and Marquis, K. H. 1965. "A report on respondents' reading of the brochure and letter and an analysis of respondents' level of information," Ann Arbor: Institute for social Research, University of Michigan

Cannell, C., Oksenberg, L., Fowler, F.J., Kalton, G., and Bischoping, K. 1989. "New Techniques for Pretesting Survey Questions," Final Report for Grant Number HS 05616 from the National Center for Health Services Research and Health Care Technology Assessment, Ann Arbor, MI: Survey Research Center, University of Michigan

Cantor, D. and Edwards, C. 1992, "Testing Alternative Household Roster Questions for the Survey of Income and Program Participation." Final Report submitted to the Census Bureau under Bureau of Labor Statistics contract #J-9-J-8-0083.

Casady, R.J. and Lepowski, J.M. 1993. "Stratified telephone survey designs," *Survey Methodology* 19(1):101-113.

Cash, W. S. and Moss, A. J. 1972. "Optimum recall period for reporting persons injured in motor vehicle accidents," *Vital Health Statistics, National Center for Health Statistics,* Series 2, No. 50

Cherlin, A., Griffith, J., and McCarthy, J. "A note on maritally-disrupted men's reports of child support in the june 1980 current population survey." *Demography* 20:385-389.

Cherlin, A.J. 1992. Marriage, Divorce, Remarriage. Revised and Enlarged Edition. Cambridge: Harvard University Press.

Clark, C., Kennedy, B., and Wysocki, M. 1993. "Coverage Error in the Canadian Labour Force Survey." Proceedings of the Bureau of Census Annual Research Conference. 602-637

Colombotos, J. 1965. "The effects of personal vs. Telephone interviews on socially acceptable responses," *Public Opinion Quarterly* 29(3):457-458

Conrad, F. and Brown, N. 1995. "Estimating Frequency: A Multiple Stragegy Perspective," Paper presented at the annual conference of the Association for Consumer Research, Minneapolis, MN

Conrad, F., Brown, N., and Cashman, E. 1993. "How the memorability of events affects frequency judgments," *American Statistical Association Proceedings of the Section on Survey Research Methods* 1058-1063

Conrad F. and Blair, J. 1996. "From Impressions to Data: Increasing the Objectivity of Cognitive Interviews," Paper presented at the annual meeting of the American Statistical Association, Chicago, IL

Copeland, A.P. and White, K. M. 1991. Studying Families, Newbury Park, CA: Sage Publications

Couper, M.P. and Singer, E. 1996. "Noncoverage error and the NCVS," Report submitted to the Bureau of Justice Statistics.

Couper, M. and Groves, R.M. 1992. "The role of the interviewer in survey participation." *Survey Methodology* 18:263-271

Dawes, R. and Smith, T. 1985. "Attitude and opinion measurement." In Lindsey, G. *Handbook of Social Psychology*, New York: Random House

deleeuw, E.D. and van der Zouwen, J. 1988. "Data quality in telephone and face-to-face surveys: "A comparative meta-analysis." In R. M. Groves, et. al., (Eds.), *Telephone Survey Methodology*. New York: Wiley, 283-300

Dillman, D. 1978. Mail And Telephone Surveys, New York: Wiley & Sons;

Dillman, D.A., Brown, T.L., Carlson, J.E., Mason, R., Saltiel, J. and Sangster, R.L. 1995. "Effects of Category Order on Answers to Mail and Telephone Surveys." *Rural Sociology*, 60(4):674-687

Esposito, J.L., Campanelli, P.C., Rothgeb, J.M., and Polivka, A.E. 1991. "Determining which questions are best: Methodologies for evaluating survey questions," *American Statistical Association Proceedings of the Section on Survey Research Methods* 46-53; b.

Esposito, J.L., Campanelli, P.C., Rothgeb, J.M., and Polivka, A.E. 1991. "Determining Which Questions are Best: Methodologies for Evaluating Survey Questions." *American Statistical Association Proceedings of the Section on Survey Methods* 46-53

Fienberg, S.E. and Tanur, J.M. 1989. "Combinging Cognitive and Statistical Approaches to Survey Design," *Science* 243:1017-1022

Forsyth, B.H., Lessler, J.T., and Hubbard, M.L. 1992. "Cognitive Evaluation of the Questionnaire." In C. F. Turner, J. T. Lessler, and J. C. Gfoerer (Eds.), Survey Measurements of Drug Use: Methodological Studies, DHHS Publication No. 92-1929, Washington, DC: US Government Printing Office

Forsyth, H. Lessler, J.T., and Hubbard, M.L. 1992. "Cognitive Evaulation of the Questionnaire." In C. F. Turner, J. T. Lessler, and J. C. Gfroerer (Eds.), Survey Measurements of Drug Use: Methodological Studies, DHHS Publication No. 92-1929, Washington, DC: US Government Printing Office

Groves, R.M., Cialdini, and Cooper, M.P. 1992. "Survey Participation." *Public Opinion Quarterly* 56:475-495.

Groves, R.M. 1989. Survey Errors and Survey Costs, New York: John Wiley. Ch. 3.

Groves, R.M. 1989. Survey Errors and Costs, New York: John Wiley, Ch. 5 and 11

Groves, R.M. 1989. Survey Errors and Survey Costs, New York: John Wiley. Ch. 10; and A.

Groves, R.M. 1989. Survey Errors and Survey Costs, New York: John Wiley. Ch. 9.

Groves, R.M. and Lepkowski, J.M. 1985. "Dual Frame, mixed mode survey designs." *Journal of Official Statistics* 1:264-286

Groves, R.M., and Kahn, R.L. 1979. Surveys by Telephone, New York: Academic Press

Harlowe, C. 1996. Communication with this Working Group, 1996.

Heberlein, T.A. and Baumgartner, R. 1978, "Factors affecting response rates to mailed questionnaires: A quantitative analysis of the published literature," *American Sociological Review* 43:447-462

Hermann, D.J. 1993. "The validity of retrospective reports as a function of the directness of retrieval." In N. Schwartz & S. Sudman (Eds.), Autobiographical Memory and the Validity of Retrospective Reports. New York: Springer-Verlag, pp.21-37.

Herriot, R.A. 1977. "Collecting Income Data on Sample Surveys: Evidence from Split-panel Studies." *Journal of Marketing Research* 14:322-329

Herzog, A.R. and Bachman, J. 1981. "Effects of questionnaire length on response quality," *Public Opinion Quarterly* 45:549-559

Hill, F. P. Stafford, F. T. Juster, and colleagues. 1975-1981 Time Use Study. 1981.

Hochstim, J.R. 1967. "A Critical Comparison of Three Strategies of Collecting Data from Households," Journal of the American Statistical Association, 62(319):976-989

Hughes, A.L. and Gfroerer, J.C. 1990. "Analysis of survey data on drug experience by mode of data collection," Proceedings of the Section on Survey Research Methods, Anaheim, CA

Jick, T.D. 1979. "Mixing qualitative data as an attractive nuisance: The problem of analysis." *Administrative Science Quarterly*, 24 (4):602-611

Johnson, T.P., Hougland, Jr., J.G., and Clayton, R.R. 1989. "Obtaining reports of sensitive behavior: Comparisons of substance use reports from telephone and face-to-face interviews," *Social Science Quarterly*, 20(2):174-183

Jones, E.E. and Nisbett, R.E. 1972. "The actor and the observer: Divergent perception of the causes of behavior." In E.E. Jones, et. al. (Eds.), Attribution: Perceiving the Causes of Behavior, Morristown, NJ: General Learning Press

Jones, E.E. and Nisbett, R.E. 1972. "The actor and the observer: Divergent perception of the causes of behavior." In E.E. Jones (Eds.), Attribution: Perceiving the Causes of Behavior Morristown, NJ: General Learning Press

Lord, C.G. 1980. "Schemas and images as memory aids: Two modes of processing social information," Journal of Personality and Social Psychology, 38(2), 257-269.

Juster, F.T and Stafford, F.P., (Eds). 1985. Time, Goods, and Well-Being, Ann Arbor, MI: Institute for Social Research; and *Social Indicators Research*, 23(4) Dec. 1990; and *Social Indicators Research*, 30(2-3) Nov. 1993

Juster, F.T. and Stafford, F.P. 1985. Time, Goods, and Well-Being. Ann Arbor, MI: Survey Research Center, The University of Michigan.

Kaspryzk, D., Duncan, G., Kalton, G., and Singh, M. P. 1989 Panel Surveys, New York: Wiley and Sons; and A. P. Copeland and K. M. White. 1991. Studying Families, Newbury Park, CA: Sage Publications.

Kearny, A.T., Tourangeau, R., Shapiro, G. M., and Ernst, L. R. 1993. "Coverage improvement from experimental residence questions," American Statistical Association Proceedings of the Section on Survey Research Methods: 162-167.

Knoke, D. and Kuklinski, J.H. 1982. Network Analysis, Beverly Hills, CA: Sage Publications, Inc.

Kojetin, B. and Miller, L.A. 1993. "The intrahousehold communications study: Estimating the accuracy of proxy responses at the dyadic level," Paper presented at the annual meeting of the American Association for Public Opinion Research, Pheasant Run, IL.

Kojetin, B.A. and Jerstad, S.J. Feb. 1997. The Quality of Proxy Reports on the Consumer Expenditure Survey. Paper presented at the Society of Consumer Psychology Conference, St. Petersburg, FL.

Kojetin, B.A. and P.A. Mullin. 1995. "The quality of proxy reports on the Current Population Survey (CPS)," Paper presented at the Annual Convention of the American Association for Public Opinion Research, Fort Lauderdale, Florida

Kojetin, B.A., Burnbauer, L.D., and Mullin, P. 1995. Family members knowledge and agreement about each others activities. Paper presented at the annual meeting of the American Psychological Society, New York City, New York

Kormendi, E. 1988. "The quality of income information in telephone and face-to-face surveys." In R. M. Groves, et. al., (Eds.), Telephone Survey Methodology, New York: Wiley, 341-356.

Krosnick, J.A. and Alwin, D.F.. 1987. "An evaluation of a cognitive theory of response-order effects in survey measurement," *Public Opinion Quarterly*, 51(2), 265-267

Laumann, E.O., Gagnon, J.H., Michael, R.T., and Michaels, S. 1994. The Social Organization of Sexuality: Sexual Practices in the United States. Chicago: University of Chicago Press.

Little, R.J. and Rubin, D.B. 1987. Statistical Analysis With Missing Data, New York: Wiley & Sons

Lord, C.G. 1980. "Schemas and images as memory aids: Two modes of processing social information," *Journal of Personality and Social Psychology*, 38(2), 257-269.

Madala, G.S. 1983. Limited-Dependent and Qualitative Variables in Econometrics, New York: Cambridge University Press.

Martin, E. and Polivka, A.E. 1995. Diagnostics for Redesigning Questionnaires. *Public Opinion Quarterly*, 59, 547-567

Martin, E.A., and de la Puente, M. 1993. "Research on Sources of Undercoverage Within Households," *American Statistical Association Proceedings of the Section on Survey Research Methods*, 1262-1267.

Mathiowetz, N. and Groves., R.M. 1985. "The effects of respondent rules on Health survey reports," *American Journal of Public Health*, 75, 639-644

McKay, R.B. 1993. "Undercoverage of Hispanics in household surveys," *Monthly Labor Review*, 166, 38-42.

McKay, R.B. and de la Puente, M. 1995. "Cognitive Research in Designing the CPS Supplement on Race and Ethnicity," Bureau of the Census Proceedings of the Annual Research Conference

McKay,R.B., Stinson, L., de la Puente, M., and Kojetin, B. 1996. "Interpreting The Findings of the Statistical Analysis of the CPS Supplement on Race and Ethnicity," Proceedings of the Bureau of Census' 1996 Annual Research Conference, Rosslyn, VA

McLanahan, S. and Garfinkel, I. 1996. Memorandum to the Working Group on the Methodology of Survey Research on Fathers.

Menon, G. 1994. "Judgments of Behavioral Frequencies: Memory Search and Retrieval Strategies." In N. Schwarz and S. Sudman (Eds.), Autobiographical Memory and the Validity of Retrospective Reports (pp. 161-172), New York: Springer-Verlag

Menon, G., Bickart, B., Sudman, S., and Blair, J. 1995. "How well do you know your partner? Strategies for formulating proxy-reports and their effects on the convergence to self-reports," *Journal of Marketing Research*, 32, 75-84

Miller, L.A. and Tucker, C. 1993. "The Intrahousehold Communications Study: Family cohesion and the level of knowledge about expenses," *American Statistical Association Proceedings of the Section on Survey Research Methods*, 942-947

Miller, L.A. and Tucker, C. 1993. "The Intrahoushold Communications Study: A typology of family cohesion," *American Statistical Association Proceedings of the Section on Survey Research Methods*, 936-941;

Miller, L.A. and T. Downes-Le Guin. 1989. "Improving comprehension and recall on the Consumer Expenditure Interview Survey: Discrepancies in comprehension and recall as a source of nonsampling error," *American Statistical Association Proceedings of the Section on Survey Research Methods*, 502-507

Mohadjer, L. 1988. "Stratification of Prefix Areas for Sampling Rare Populations," In R. Groves, P. Biemer, L. Lybert, J. Massey, W. Nicholls, and J. Waksbert (Eds.), Telephone Survey Methodology, New York: Wiley & Sons

Moore, J.C. 1988. "Self/proxy response status and survey response quality: A review of the literature," *Journal of Official Statistics*, 4, 155-172

Moore, J. and Marquis, K. 1989. "Using Administrative Record Data to Evaluate the Quality of Survey Estimates," *Survey Methodology*, 15, 129-143.

Morgenstern and Barrett. 1974. "The retrospective bias in unemployment reporting by sex, race, and age," *Journal of the American Statistical Association*, 15, 129-143

Morton-Williams, J. 1993. Interviewer Approaches, Aldershot: Dartmouth Publishing Company Limited

Mosher, W.D., Pratt, W.F, and Duffer, A.P., II. 1994. "CAPI, Event Histories, and Incentives in the NSFG Cycle 5 Pretest." Proceedings of the Section on Survey Research Methods, American Statistical Association, Toronto.

Mullin, P.A., Cashman, E. R., and Straub, H. R. 1996. "Answering question sequences: Attention switching and memory organization." In Hermann, D., McEvoy, C., Hertzog, C., Hertel, P., and Johnson, M. Basic and Applied Memory: Research: Practical Applications, Volume 2, Hillsdale, NJ: Erlbaum.

Mullin, P.A. and Tonn, B.E. 1993. "Factors associated with proxy knowledge of employment-related information," American Statistical Association Proceedings of the Section on Survey Research Methods

Nargundkar, M.S. and Gower, A.R. 1991. "Cognitive Aspects of Questionnaire Design: Business Surveys Versus Household Surveys," Proceedings of the 1991 Census Annual Research Conference

Parsley, T.L. 1993. "Report on 1990 NHSDA-Census Match: Final Report." Research Triangle Institute: Report to the Substance Abuse and Mental Health Services Administration (Contract No. 271-89-8333).

Peterson, L.S. and Schechter, S. 1995. "Methods to Improve Recall and Reporting in a CAPI Survey: The National Survey of Family Growth." Proceedings of the U.S. Census Bureau Annual Research Conference.

Peterson, L.S. and Schechter, S. 1995. "Methods to Improve Recall and Reporting in a CAPI Survey: The National Survey of Family Growth." Proceedings of the U.S. Census Bureau Annual Research Conference.

Poister, T. H. 1978. Public Programs Analysis, Baltimore, MD: University Park Press

Raghunathan, T.E., Groves, R.M., and Couper, M. 1996. "Statistical adjustment models for unit nonresponse," Paper presented at the 7th International Workshop on Household Survey Non-Response, Rome Italy; and P. Vaisanen. 1996. "Nonresponse in cluster sampling and adjustment of weights in unit level: Application to a household based LFS," Paper presented at the 7th International Workshop on Household Survey Non-Response, Rome, Italy

Riessman, C.K. 1993. Narrative Analysis, Newbury Park, CA: Sage Publications, Inc.

Rogers, T.F. 1976. "Interview by telephone and in person: Quality of responses and field performance," *Public Opinion Quarterly*, 4040(1), 51-65

Schuman, H. and Presser, S. 1981. Questions and Answers in Attitude Surveys, San Diego: Academic Press, Inc.; and R. M. Groves. 1989. Survey Errors and Survey Costs, New York: John Wiley.

Schuman, H. and Presser, S. 1981. Questions and Answers in Attitude Surveys, San Diego: Academic Press, Inc.

Schuman, H. and Presser, S. 1981. Questions and Answers in Attitude Surveys, San Diego: Academic Press, Inc.

Schwarz, N. and Sudman, S. (Eds.). 1993. Autobiographical Memory and the Validity of Retrospective reports, New York: Springer-Verlag

Schwarz, N. and Sudman, S. (Eds.). 1993. Autobiographical Memory and the Validity of Retrospective Reports, New York: Springer-Verlag

Second Conference on Cognitive Aspects of Survey Methodology, June 1997.

Seltzer, J. and Brandreth, Y. 1994. "What Fathers Say About Involvement With Children After Separation." *Journal of Family Issues*, 15: 46-77.

Silberstein, A.R. 1989. "Recall effects in the U.S. Consumer Expenditure Interview Survey," *Journal of Official Statistics*, 5, 125-142

Silberstein, A.R. 1993. "Part-set cueing in diary surveys," *American Statistical Association Proceedings of the Section on Survey Research Methods*, 398-403

Silberstein, R. 1989. "Recall effects in the U.S. consumer Expenditure Interview Survey," *Journal of Official Statistics*, 5, 125-142

Sirkin, M.G. and Casady, R.J. 1988. "Sampling variance and nonresponse rates in dual frame, mixed-mode surveys." In R. Groves, P. Biemer, L. Lyberg, J. Massey, W. Nicholls, and J. Waksberg (Eds.), Telephone Survey Methodology, New York: Wiley and Sons.

Smock, P.J. and Manning, W.D. October 1996. "Nonresidential Parents' Economic Ties to Children: New Evidence from the Panel Study of Income Dynamics." Paper presented at the NIH Conference on Father Involvement, Bethesda,

Sonenstein, F.L. and Calhoun, C.A. 1990. "Determinants of Child Support: A Pilot Survey of Absent Parents." Contemporary Policy Issues 8: 75-93.

Sorensen, E. 1996. "A National Profile of Noncustodial Fathers and Their Ability to Pay Child Support." Manuscript, 1996.

Sudman, S. and Bradburn, N. 1973. "Effects of time and memory factors on response in surveys," *Journal of the American Statistical Association*, 68(344), 805-815

Sudman, S., Bradburn, N.M., and Schwarz, N. 1996. Thinking about Answers: The Application of cognitive Processes to Survey Methodology, San Francisco: Jossey-Bass.

Sudman, S. Bradburn, N.M., and Schwarz, N. 1996. Thinking About Answers: The Application of Cognitive Processes to Survey Methodology, San Francisco: Jossey-Bass.

Sudman, S. and Ferber, R. 1974. "A Comparison of Alternative Procedures for Collecting Consumer Expenditure Data for Frequently Purchased Products." *Journal of Marketing Research*, 11, 128-135.

Sudman, S., Bickart, B., Blair, J., and Menon, G. 1994. "The effect of participation level on reports of behavior and attitudes by proxy reporters." In N. Schwarz and S. Sudman (Eds.) Autobiographical memory and the validity of retrospective reports, New York: Springer-Verlag.

Sweet, E.M. 1994. "Roster research results from the living situation survey," *Proceedings of the Bureau of the Census Annual Research Conference*, 415-433.

Tanur, J.M. (Ed.). 1992. Questions about questions: Inquiries into the Cognitive Bases of Surveys, New York: Russell Sage Foundation.

Tanur, M.J. 1992. Questions about questions: Inquiries into the Cognitive Bases of Surveys, New York: Russell Sage Foundation.

The National Health and Social Life Survey (Laumann, Gagnon, Michael and Michaels (1994)), The National Survey of Men (Tanfer, Billy and Grady, 1993), The National Survey of Adolescent Males (Sonenstein, Pleck and Ku, 1989) and The AIDS Surveys (Catania et al, 1992).

Tucker, C., Casady, R., and Lepowski, J. 1991. "An evaluation of the 1988 Current Point-of-Purchase CATI Feasibility Test." *Proceedings of the Section on Survey Research Methods, American Statistical Association*, 508-513.

Tucker, C. 1996. "Methodological Issues Surrounding the Application of Cognitive Psychology in Survey Research," Paper presented at the International Conference on Social Measurement, University of Essex.

Tucker, C., Casady, R., and Lepowski, J. 1991. "An evaluation of the 1988 Current Point-Of-Purchase CATI Feasibility Test." *Proceedings of the Section on Survey Research Methods, American statistical Association*, 508-513.

Tucker, C. 1992. "The estimation of instrument effects on data quality in the Consumer Expenditure Diary Survey." *Journal of Official Statistics*, 8:41-61.

Tucker, C., Casady, R., and Lepowski, J. 1991. "An evaluation of the 1998 Current Point-of-Purchase CATI Feasibility Test." *Proceedings of the Section on Survey Research Methods, American Statistical Association*, 508-513.

Tucker. 1996. "Methodological Issues Surrounding the Application of Cognitive Psychology in Survey Research," Paper presented at the International conference on Social Measurement, University of Essex; G. King, R. O. Keohane, and S. Verba. 1994. "Designing Social Inquiry," Princeton, NJ: Princeton University Press

Turner, C., Forsyth, B., O'Reilly, J., and Miller, H. 1996. "Automated self-interviewing in surveys," Paper presented at the International Conference on computer-Assisted Survey Information Collection, San Antonio, TX.

U.S. Bureau of the Census, Department of Commerce, Statistical Abstract of the United States: 1996, October, 1996.

U.S. Department of Education, National Center for Education Statistics, Pursuing Excellence, NCES 97-198, Washington D.C.: U.S. Government Printing Office, 1996.

Warriner. 1991. "Accuracy of self-reports to the burdensome question: Survey response and nonresponse error trade-offs. Accuracy of self-reports, " *Quality and Quantity*, 23:253-269.

Willis, G.S., Royston, P., and Bercini, D. 1991. "The Use of Verbal Report Methods in the Development and Testing of Survey Questionnaires," *Applied Cognitive Psychology*, 5, 251-267

Yin, R.K. 1989. Case Study Research: Design and Methods, Newbury Park, CA: Sage Publications, Inc.

Chapter 6:

Opportunities to Improve Data and Research on Fatherhood

Chapter 6: Summary of the Targets of Opportunities Presented to the Interagency Forum on Child and Family Statistics by the Working Group on Targets of Opportunity and Trade-Offs

Linda Mellgren (co-chair)
Wendy Taylor (co-chair)

Report to the Federal Interagency Forum

On October 1, 1997 the Data Collection Committee presented to the Federal Forum on Child and Family Statistics a report on ten key Federal activities that could improve data collection on fertility, family formation, and fathering. Identified as targets of opportunities, some of these activities required that the Forum initiate action. Others asked the Forum to promote certain opportunities that would benefit from multi-agency support. The Forum endorsed the report and all of the ten identified opportunities are now in some stage of implementation. This chapter presents the ten targets of opportunity, the rationale for their choice, and the implementation activities that are underway.

The goal of this multi-year review of the state of data collection and research on male fertility and fathering has been to fill gaps and build on existing efforts. The ten targets of opportunity identified in this section reflect the general agreement by a wide range of participants on the most important issues that need to be addressed, but do not exhaust the set of recommendations and ideas that have been identified as a part of this review. The report to the Forum focused on those activities that seemed most consistent with the missions of the Forum member agencies and that would benefit substantially from ongoing interagency collaboration. The selection of particular surveys or mechanisms for exploring change resulted from discussions among work group and data collection committee members, conference participants, academic experts and Federal agency staff. New efforts were considered only when no other options were available.

Target of Opportunity One: State of Data Collection and Research on Fathering

- **Publish a report on the state of data collection and research on male fertility, family formation, and fathering.**

Rationale: The papers and plenary sessions from the March conference provide the most extensive overview of the substantive and methodological issues surrounding data collection and research on male fertility and fatherhood ever assembled at one time. Because of the excellent scholarship and multi-disciplinary partnerships that went into writing the papers, these published proceedings could contribute to the development of more precise measurement and understanding of male fertility and fathering for the next decade.

Implementation Status: This report, *Nurturing Fatherhood: Improving Data and Research on Male Fertility, Family Formation and Fatherhood*, in this report; it has been published and distributed widely and is available on the Internet has been published.

Target of Opportunity Two: **Indicators of Male Fertility and Fatherhood**

- **Publish a Report on Fatherhood Indicators. This report would include indicators on male fertility, family formation, and fathering.**

Rationale: A systematic assessment of the information available on male fertility, union formation and fatherhood needs to be conducted to identify desirable indicators, to identify survey mechanisms, to obtain data, to evaluate the quality and usefulness of what is available, and to tabulate and publish the best available information for the public and policy making communities. In the Forum's report, *America's Children: Key National Indicators of Well-Being*, some of the important missing indicators were identified: family structure, time use (for both parents), children's interaction with nonresident parents, particularly fathers, and the establishment of paternity; but more work needs to be done. Although this report would not be a trends report, it would establish the baseline for new trend lines and identify trend information that may exist on a limited number of indicators. Focusing on the indicator identification and selection process would clarify what data on fatherhood are most critical for routine collection by federal statistical agencies. Progress on the development of indicators would also improve the quality and standardization of questions asked on national surveys. We anticipate that a by-product of this effort would be the inclusion of more fatherhood indicators in trends reports produced by the Federal Government and elsewhere.

Implementation Status: The Reporting Committee of the Forum has agreed to develop this baseline report with assistance from the NICHD Family and Child Well-Being Research Network and the Office of the Assistant Secretary for Planning and Evaluation/DHHS. Basic conceptual work is already underway. Potential indicators for male fertility and union formation were developed by the and Work Group Male Fertility and Family Formation as part of their conference paper. Kristin Moore and Anne Driscoll of Child Trends coordinated work on indicators of male fertility and family formation. The NICHD Family and Child Well-being Research Network has asked Randal Day, Kristin Moore and Brett Brown to take the lead on developing fatherhood/fathering indicators. Although the first stage of the process has begun, additional work will be needed to actually identify what information is available and to assess its quality. Some additional data analysis may be needed as well before a product could be published. Funding is being sought from several agencies and from the private sector. The target date for release of the report is on or near Fathers Day 1999.

Target of Opportunity Three: **Collection of Data on Male Fertility**

- **Use the National Survey of Family Growth to increase our understanding of fertility and family formation by interviewing men directly.**

Rationale: In order to identify trends and differences in how men become fathers and what they do as fathers, basic descriptive information needs to be collected periodically about (a) their sexual activity, contraceptive use, the pregnancies to which they contribute, and the outcomes of these pregnancies; (b) males' perceptions of their own and their partners' views of the intendedness of these pregnancies and births and their views of fatherhood and marriage; and (c) what they do as fathers. To accomplish this objective the collection of data about male fertility must be institutionalized. Expansion of the NSFG is the most promising avenue for this effort. What is learned from the NSFG work should also be used to inform the collection of male fertility information in other surveys.

Implementation Status: NCHS has funded seven small contracts to examine what has been learned in other large national surveys that have collected information directly from men on their sexual behavior and family formation. The results of these reviews will be submitted in early in 1998. By April or May of 1998, there should be an outline of the questionnaire for males. A contract will be let in the spring of 1998 to draft a questionnaire for men. In addition to NCHS, NICHD and the Office of Population Affairs (DHHS) are contributing to this developmental work.

Target of Opportunity Four: Better Measurement of Father Absence and Presence

- **Include measures of whether fathers live with and have contact with their children in surveys and routine administrative data collection. Additional measures of father-child interaction should be developed and incorporated as feasible.**

Rationale: Data on marital status and cohabitation cannot be used to measure father involvement, because unrelated males living in a household may be the children's father, some fathers see their children often and regularly even though they may not be living in the same household with them, and custody and visitation arrangements increase the difficulty of identifying the nature of father-child interactions. Children's living arrangements with their parents have been shown to have strong relationship to child outcomes, but questions on living arrangements and contact in most surveys do not measure father absence or presence accurately. This change would be a first step toward correctly measuring father-child living arrangements and involvement.

Implementation Status: The Data Collection Committee of the Forum will review how questions of cohabitation, contact and interaction are addressed in major federally sponsored surveys and in other routine data collection, such as vital statistics reporting. The Committee is to develop and report back to the Forum with a plan for identifying the best prototype questions and developing new questions, if necessary. The Committee should include recommendations on how to make this information available to sponsoring agencies in a timely fashion. A number of related activities are already underway:

- As a result of the President's initiative and the Forum's interest in the issue of fatherhood, ASPE and NICHD have provided the Panel Study of Income Dynamics (PSID) with additional resources to expand the information available about and from nonresident fathers. Analysis of the expanded data collection should be available soon.

- The Data Collection Committee has a project underway to examine how living arrangements are addressed in major national surveys.

- ASPE has transferred funds to the Census Bureau to investigate the possibility of expanding male fertility and nonresident contact questions on the Survey of Income and Program Participation (SIPP).

- NCHS is in the process of working with states on the FY 2002 revision of the birth registration forms.

- NCES has funded Child Trends to identify constructs and review existing father-child contact and involvement questions in major national surveys.

Target of Opportunity Five: Understanding the Role of Father Involvement in Child Development and School Readiness

- **Use the Early Childhood Longitudinal Study Birth Cohort Study (ECLS-B) to expand our understanding of fathers' relationship to child development and school readiness by including a module on the involvement of both resident and nonresident fathers.**

Rationale: The ECLS-B is a new study that will provide information on young children's health and nutrition; physical, cognitive and social development; and child care, child development program and school experience. The ECLS-B will have a nationally representative sample of approximately 15,000 children. This study provides a significant opportunity to identify those aspects of father-child and father-mother interactions that affect young children's development over time. Including fathers is crucial because studies of school-age children and youth have shown that father absence is adversely associated with school performance and that resident and nonresident fathers can have positive effects on school performance, independent of mothers. Yet, at the same time, many previous studies have not found that father involvement influences the cognitive ability of young children. This study would allow us to begun understanding how and when fathers' influence on children's cognitive development and school performance develops.

Implementation Status: The contract for the ECLS-B design has been awarded to Westat. The scope of work includes provision of a module for fathers who live in the home, but no decision has been made on whether to try to interview fathers who do not live with the child. Developmental work has begin to determine the difficulty in finding nonresident fathers and to identify the most important questions that fathers should be asked. Funding options are being developed to ensure that sufficient resources are included in the survey to obtain information from non-resident fathers who continue to have an influence on their childs development and well-being.

Target of Opportunity Six: The Transition from Adolescence to Adulthood: Understanding the Relationship of Sexual Activity, Fertility, Marriage, and Parenthood to Educational Attainment and Labor Force Participation.

- **Use the new National Longitudinal Survey of Youth (NLSY-97) to increase our understanding of how sexual activity, fertility, marriage, and parenthood (including child support and child care responsibilities) affect educational attainment and labor force participation for men.**

Rationale: The NLSY-97 provides a unique opportunity for examining how male sexual behavior, fertility, cohabitation, marriage and fatherhood affect the education, training, employment and income of young men and women. Longitudinal data obtained directly from young men will provide descriptive information on male behavior. Moreover, analytic data will support studies of how fertility, family formation and fatherhood affect labor force success and how labor force activities affect families and children. The previous youth survey (the NLSY-79) has been one of the most important survey instruments for increasing our understanding of the impact of fathering and family formation on the lives of young men because it interviewed young men directly and asked them questions about their fertility and fathering behaviors rather than gathering information from a secondary source. However, its analytic use would have been enhanced, if comparable data had been collected across all waves.

Implementation Status: An initial wave of data collection has been completed for the NLSY-97 that includes rich data on sexual and contraceptive behavior, cohabitation, marriage and fatherhood. Discussions are underway to determine how many of these questions can be included in the subsequent waves. NICHD has made a funding commitment to help in this effort and to include child support and child care questions as part of future efforts.

Target of Opportunity Seven: Developing a Better Understanding of the Meaning of Father Involvement

- **Use the Early Head Start Research and Evaluation Project as a laboratory for conducting basic theoretical research on the meaning and nature of fathering for low-income men and their children.**

Rationale: Additional basic research is needed to expand the concept of father involvement, constructs should be included, and how those constructs should be measured. Conference participants identified the need to explore how the meaning of parenthood may differ for men and women and how the meaning and actions of fathering may differ by race, ethnicity, culture and income. Such research usually has to be done outside general survey work because participants need to be interviewed in-depth. Without an expansion of work in this area we will remain unsure that we are asking the right questions about fathering or are asking questions in the right way.

The Early Head Start (EHS) Research and Evaluation Project allows us to examine issues of fathering for low-income and minority parents who are married, cohabitating, dating, or no longer in a relationship, and who have relatively young children (less than two years of age). This is precisely the population that has been ignored in most of the studies of parenting behavior. Because these interviews would take place within the context of the much larger Early Head Start research project, it would also be possible to determine whether the study fathers were generally representative of a much larger group of fathers.

Implementation Status: Members of the Data Collection Committee are working with the EHS project to ensure that a direct connection between research needs and project design is maintained and that the results of the EHS project are shared and utilized to refine measures of father involvement. The Early Head Start Research and Evaluation Project was identified as a potential laboratory in which marginalized fathers could be identified and studied. The project has a group of well-qualified, university-based, researchers at 15 EHS research sites who are interested in conducting research on the issues of fathering and on the relationship of fathering to child development. An EHS research consortium has been formed and has received planning money from the Head Start Bureau and ASPE to develop a collaborative research agenda on low-income fathers that addresses some of the theoretical issues that have been identified in the Forum sponsored research review. NICHD is providing core support and the Ford Foundation is considering funding for an in-depth sub study of fathers and infants.

Target of Opportunity Eight: Finding the Missing Men--Living Arrangements

- **Test, as part of a national survey, the experimental method for identifying individuals who are tenuously attached to households developed by the Bureau of the Census and piloted in the Living Situation Survey(LSS).**

Rationale: The Living Situation Survey(LSS) was developed as part of the Bureau of the Census' ongoing efforts to decrease undercoverage in the decennial census. About one-third of the coverage error in surveys occur because of errors made in compiling household rosters, and error rates are higher for minorities, males, young adults, nonrelatives, and persons with tenusous attachment to households. Fathers, especially young adult, minority, never-married fathers, who are not located or are not included in the survey process at all are undercounted in large scale sample surveys, including the decennial census. This undercount varies by age and race and also appears to be greater for never-married fathers than for previously-married fathers. One of the reasons for this undercount is that many young-adult minority men do not permanently reside in any one household. They may live for a few weeks with their parents, move in with a girlfriend or other friends for a while and then stay with a sibling. Frequently no one considers the young man a member of their household. Because the undercount is heavily concentrated in populations of high policy interest, improvements in coverage have the potential of improving our data on a wide range of areas including fertility and family structure, income and child support, victimization, health and risk behaviors. The LSS has been pretested on a national probability sample of one thousand households. The results of that test were quite promising.

Implementation Status: Census Bureau researchers are proposing a field experiment in July of 1999 to evaluate the efficacy of modified and expanded roster probes for possible implementation in Census Bureau household surveys. The field experimentation would be followed by ethnographic follow-up interviews to further explore causes of omissions. NICHD has made a commitment of $100,000 to the Census for further development work and testing of the methods employed in the Living Situation Survey. This work will provide important information, but a full scale test of the LSS as a part of a national survey would provide higher quality and more definitive information.

Target of Opportunity Nine: Finding the Missing Men: Special Populations

- **Explore, with the Department of Justice and the Department of Defense, the possibility of including military and prison populations in some surveys.**

Rationale: Fathers in the military and in prison are part of the undercount problem. Like the lack of permanent living arrangement, the absence of these populations from national surveys distorts the identification of who and where fathers are and how they affect their children's development. Moreover, the household sampling frame for most of our national surveys would continue to exclude these populations even if we expanded the definition of living arrangement in those surveys. Prison surveys indicate that over two-thirds of the men in prison are fathers; given the relatively young age of men in prison, many have children who are still minors. Some urban areas are heavily affected by the criminal justice system, with 25% or more of young men in jail or prison. Similarly, men in military barracks are missing from household sampling frames as well. Methods should be identified that permit these populations to be included in our surveys, or special surveys of these populations should be developed so that they can be combined with, or be used in conjunction with, other national data collection efforts.

Implementation Status: A subcommittee of the Data Collection Committee has been formed to explore improving data collection and comparability of data collection of institutionalized populations. The subcommittee is chaired by the National Institute of Justice with participating members from the Bureau of Justice Statistics, The Administration for Children and Families/ Department of Health and Human Services, Department of Education, and National Center for Health Statistics. We are exploring with the Department of Defense whether they would like to co-chair this effort which would be expanded to cover military personnel or lead a parallel effort.

Target of Opportunity Ten: Expanding Data Collection Sources

- **Explore the possibility of using state administrative data to augment national survey data about fathers.**

Rationale: One of the most complex data problems involving fathers is that it is difficult to collect any information about nonresident fathers. Direct interviews of resident and nonresident parents double the cost of collecting information and information asked of the resident parent, about the parent who lives elsewhere, is often unreliable. There is currently an expansion of information being collected at the state level on nonresident parents as part of new mandates on the child support enforcement system. These mandates may make it possible to add some income, employment and location information to survey data without conducting two interviews.

Implementation Status: The State and Local Data Committee will explore the feasibility of testing the use of state administrative data to augment national survey data about families. The Committee will review current efforts, and identify issues and constraints, e.g., privacy, informed consent, and survey integrity.

Continuing the Public-Private Partnership

The general approach taken in the selection of these targets of opportunity was to identify a mix of activities that would produce significant improvements in how data on fertility, family formation and fathering is collected and that could provide a broad research community with more accurate and complete information on factors that affect family and child well-being. The opportunities selected are not the only options for accomplishing these objectives, but, in the considered judgement of federal staff and researchers, appeared to be the opportunities with high potential for success and ones that would benefit from the Forum's Federal leadership. Critical to the selection of activities were issues of timing, staff resources, and agency commitment.

Costs associated with each of the ten targets of opportunity have been discussed, but those discussions are not included in this volume. Some projects will be done as part of competitively-awarded government contracts, other activities will be negotiated as part of ongoing agency administrative or intramural research expenditures. Some projects are soliciting support from private foundations. These investments are likely to have a high payoff, not just to our understanding of the dynamics of fatherhood, but is our understanding of how children are affected by the family and community context in which they live.

An organized, well-thought out, interdisciplinary plan for improving information on male fertility, family formation and fatherhood has the potential to cost less than ad hoc project development, or to cost no more, but with a substantial increase in the quality and quantity of available information. By building on agencies' existing plans and by coordinating question development across agency surveys, inefficiencies and redundancies can be reduced. Since the preponderance of evidence indicates that father involvement may play a crucial role in promoting child well-being and in helping children make the difficult transition from childhood to productive adulthood, the cost of inaction was thought to be much higher than the cost of concerted action on the part of the Forum and its member agencies.

The success of these opportunities also will depend on the continued participation of foundation and academic and nonprofit research partners. It is hoped that the development of an overall plan and the publication of these conference papers will mobilize resources and focus the attention of foundations and research experts on activities likely to produce substantial payoffs. Foundation support for this effort has already been strong and likely to continue. This review has also facilitated additional federal agency collaboration in terms of both resource commitments and joint staff efforts. To help in this collaborative effort we have included at Appendix M the names and addresses of prime contacts for each of the Chapters in this report and for the ten targets of opportunities.

There are many other national surveys and data collection activities, other than the ones we mention in this report, that will continue to be very important in increasing our understanding of male fertility, family formation and fathering. The importance of many of these has been recognized, discussed, and incorporated into the activities of this review. It is anticipated that, in addition to the publication of this volume (opportunity one), the work on other recommendations will also move forward. For example, development of the indicators report (opportunity two) and the Data Collection Committee paper on improving information on cohabitation, contact and father-child interaction (opportunity four), will specifically address the current, potential, and unique contributions of these efforts. By working together to push the analytic limits of our current data collection efforts and to thoughtfully expand new data collection efforts we can contribute to the well-being of the children of the twenty-first century.

APPENDICES

APPENDIX A

CONFERENCE AGENDA AND WORKING GROUP MEMBERS

CONFERENCE ON FATHERING AND MALE FERTILITY: IMPROVING DATA AND RESEARCH
Sponsored by the National Institute of Child Health and Human Development (NICHD),
the Federal Interagency Forum on Child and Family Statistics, the NICHD
Family and Child Well-being Research Network, and The Ford,
Kaiser Family and Annie E. Casey Foundations

Natcher Conference Center, National Institutes of Health
Bethesda, Maryland
March 13-14, 1997

Agenda

Thursday, March 13

8:30 **Coffee and Registration**

9:00 -10:00 **Session I: Introduction and Greetings**
V. Jeffery Evans, Health Scientist Administrator, NICHD
Lisa Mallory, Agency Liaison, Fatherhood Initiative, National Performance Review
Duane Alexander, Director, NICHD - History of the Fatherhood Initiative, Involvement of the Interagency Forum for Child and Family Statistics, and Charge to the Conference Participants

REPORTS FROM WORKING GROUPS

10:00 - 12:00 **Session II: Conceptualizing Fathering**
Moderator: Marilyn Manser, Assistant Commissioner, Employment, Research and Program Development, Bureau of Labor Statistics

Presenters: William Marsiglio, University of Florida
Randal Day, Washington State University

12:00 **Lunch**

1:00 - 3:00 **Session III: Male Fertility and Family Formation**
Moderator: Jennifer Madans, Acting Associate Director for Vital and Health Statistics,
National Center for Health Statistics

Presenters: Christine Bachrach, NICHD
Arland Thornton, ISR, University of Michigan
Freya Sonenstein, The Urban Institute
Kristin Moore, Child Trends, Inc.

3:00 - 3:15 **Break**

3:15 - 5:15 **Session IV - Methodology**
Moderator: Nancy M. Gordon, Associate Director for Demographic Programs, U.S. Bureau of the Census

Presenters: Jeanne Griffith, National Science Foundation
Andrew Cherlin, Johns Hopkins University
Elizabeth Martin, U.S. Bureau of the Census
Clyde Tucker, Bureau of Labor Statistics
Elaine Sorensen, The Urban Institute

5:15 **Adjourn**

5:30 **Cash Bar - Bethesda Ramada**

6:15 **No Host Dinner - Bethesda Ramada**

Friday, March 14

8:30 **Coffee**

9:00 -12:00 **Session V: Breakout Groups**
Participants will be assigned to one of five breakout groups that will meet in E1/E2 and the four Breakout rooms. They will ponder the implications of the three reports presented the previous day and develop a sense of priority regarding them.

Facilitators: David Johnson, Bureau of Labor Statistics
Jerry West, National Center for Education Statistics
Kelleen Kaye, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services
Ken Bryson, US Bureau of the Census
William Mosher, National Center for Health Statistics

12:00 **Lunch**

1:00 - 3:00 **Plenary**

Moderators: Linda Mellgren, Policy Analyst, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services
Wendy Taylor, Policy Analyst, Office of Management and Budget

Breakout groups will give reports of their recommendations. Facilitators of breakout groups will be the reporters. A general discussion will try to focus on the most important steps in an action plan for future federal action.

3:00 **Adjourn**

Working Group Members

Family Formation and Male Fertility:

Chairs: Christine Bachrach (NICHD), Freya Sonenstein (The Urban Institute). *Government Members*: David Arnaudo (Office of Child Support Enforcement, DHHS), Barbara Cleveland (Office of Child Support Enforcement, DHHS), Eugenia Eckard (Office of Population Affairs, DHHS), Howie Goldberg (Centers for Disease Control and Prevention, DHHS), Kelleen Kaye (Office of the Assistant Secretary for Planning and Evaluation, DHHS), Gontran Lamberty (Maternal Child Health, DHHS), William Mosher (NCHS), Susan Newcomer (NICHD), Martin O'Connell (Bureau of the Census), Stephanie Ventura (NCHS).

Non-Government Members: Robert Blum (University of Minnesota), Laura Duberstein Lindberg (The Urban Institute), Irv Garfinkel (Columbia University), Ron Henry (Men's Health Network), Waldo Johnson (University of Chicago), David Landry (The Alan Guttmacher Institute), William Marsiglio (University of Florida), Warren Miller (Transnational Family Research Institute), Ronald Mincy (Ford Foundation), Kristin Moore (Child Trends, Inc.), Frank Mott (Ohio State University), Constance Nathanson (John Hopkins School of Hygiene and Public Health) Joseph Pleck (University of Illinois at Champaign - Urbana), Barbara Sugland (Child Trends, Inc.), Koray Tanfer (Battelle), Elizabeth Thomson (University of Wisconsin), Arland Thornton (University of Michigan), Linda Waite (University of Chicago), Ken Wolpin (University of Pennsylvania)

Conceptualizing Male Parenting:

Chairs: Randal Day (Washington State University), Michael Lamb (NICHD) and Jeff Evans (NICHD).

Government Members: Marie Bristol, (NICHD), David Arnaudo (Office of Child Support Enforcement, DHHS), Marie Bristol (NICHD), Natasha Cabrera (NICHD), Gontran Lamberty (Maternal Child Health, DHHS), Ken Maniha (Administration of Children and Families, DHHS).

Non-Government Members: Sanford Braver (Arizona State University), Vaughn Call (Brigham Young University), Vivian Gadsden (National Center on Fathers and Families/University of Pennsylvania), Angela Greene (Child Trends, Inc.), Wade Horn (National Fatherhood Initiative), William Marsiglio (University of Florida), Elizabeth Peters (Cornell University), Mercer Sullivan (Rutgers University), Sharon Landesman Ramey (University of Alabama at Birmingham), Malcolm Williams (National Fatherhood Initiative).

Methodology:

Chairs: Andrew Cherlin (Johns Hopkins University) and Jeanne Griffith (National Science Foundation).

Government Members: Caroline Harlow (Bureau of Justice Statistics), Betsy Martin (Bureau of the Census), Linda Peterson (NCHS), Clyde Tucker (Bureau of Labor Statistics), Jerry West (NCES).
Non-government Members: Sandy Hofferth (University of Michigan), Sara McLanahan (Princeton University), Elaine Sorensen (Urban Institute), Jim Sweet (University of Wisconsin)

Targets of Opportunity and Tradeoffs:

Chairs: Linda Mellgren (ASPE) and Wendy Taylor (OMB).

Members: The Data Collection Committee of the Forum, (Jeff Evans (NICHD), Don Hernandez (Bureau of the Census/National Academy of Sciences), David Johnson (Bureau of Labor Statistics), Robert Kominski (Census), Bill Mosher (NCHS), Deborah Phillips (National Academy of Sciences), Jerry West (NCES); Kenneth Bryson (Census), Lynne Casper (Census), Gordon Lester (Census), Richard Jakopic (Administration on Children and Families, DHHS).

APPENDIX B

INTEGRATING THEORETICAL PERSPECTIVES ON GENDER, UNION FORMATION AND FERTILITY

Laura Duberstein Lindberg
The Urban Institute

Constance Nathanson
Johns Hopkins University

Joseph Pleck
University of Illinois at Urbana-Champaign

Kenneth Wolpin
University of Pennsylvania

Prepared for NICHD Workshop "Improving Data on Male Fertility and Family Formation" at the Urban Institute, Washington, D.C., January 16-17, 1997.

Introduction

The social sciences offer no unified and accepted theory of union formation and fertility. This paper delineates salient theoretical approaches area in three traditions---economics, social demography, and social psychology. Our particular focus is on what existing theories of union formation and fertility say about gender and the relative roles of men and women, whether explicitly or implicitly. Specifically, these reviews share common concerns with two factors---how gender-specific characteristics are theorized to influence behavior, and the relative roles of men and women in decision-making. Our purpose is not to be perform an exhaustive review of existing theories, but to reflect on key perspectives in light of their approach to gender.

Economic Perspectives on Marriage, Fertility and Gender

It is a commonly held, but not universal, view among economists working in the demographic area that fertility can be analyzed within the choice-theoretic framework of neoclassical economics. The assumptions of that framework are (I) that the actors have a well-defined set of preferences, (ii) that they face limited resources or, more generally, face a well-defined opportunity set, and (iii) that they make optimal decisions in the sense that there are no other decisions given their current state of knowledge that would make them better off (from their own perspective). My very brief review of the economics literature of theories of fertility is restricted to this framework (for a comprehensive review see Hotz, Klerman, and Willis, 1996). I will be simplifying to make the essential points relevant to our task.

At the most fundamental level, economic models of fertility can be viewed as a standard application of the theory of the consumer. However, the treatment of fertility behavior as a consumer choice problem has been mindful of the unique features of that behavior (children are not potatoes), which has led to important synergies with theories of time allocation, household production and human capital investment. The economic modeling of fertility has been an active area of research, incorporating advances in economic theory more generally. Thus, static lifetime formulations have given way to life cycle dynamic models. More recently, there has been increasing concern about applying individualistic models of behavior to the household as if the household was the elementary decision-making unit. This concern has given rise to new approaches to modeling household decision-making that recognize the saliency of the individual decision-makers who comprise the household (Chiappori, 1992). These new developments are just now being incorporated into the modeling of fertility. It is best to view economic modeling of fertility behavior as work in progress.

The Standard Static Lifetime Model:

Treating children as if they were no different than potatoes leads to few useful insights and has the unappealing requirement that to be consistent with observation, children must be inferior goods, i.e., like potatoes, one consumes less of them as income rises. In addition, unlike potatoes, for which there is an unambiguous market-determined price, the "price" of a child is less clearly interpreted (it is literally only the birth and maintenance cost). For these reasons, the first serious attempts at modeling fertility behavior incorporated two important extensions: (I) allowing for parental choice about the "quality" (which can be purchased at some fixed cost per unit) as well as the quantity of children (Becker and Lewis, 1973) and (ii) modeling child quality as a commodity that is "produced" by purchased market goods (e.g., schools) and parental time (Willis, 1973). With some additional assumptions, both of these extensions to the model provide an explanation for the observed negative income-fertility correlation that does not rely on children being inferior goods.

Life Cycle Dynamic Models:

The static lifetime model provided the foundation for studying features of the fertility process that go beyond the choice of the lifetime quantity (and quality) of children. In itself, the static formulation is silent about the timing and spacing of children and the relationship of childbearing to other life cycle household decisions. Life cycle dynamic models pose the decision problem in a sequential framework in which the household responds to the evolution of events that are unknown *ex ante*, allowing for sequential decisions to be made about: (I) contraception, (ii) time allocation (to work and childrearing); and (iii) consumption (see e.g., Hotz and Miller, 1988).

Almost all extant economic models of fertility, static or dynamic, treat the household as having a single set of preferences. To the extent that an alternative interpretation has been provided, it has been to consider the woman as the unit of analysis and ignore or treat only superficially marriage and divorce. However, the fact that non-marital fertility now accounts for about 30 percent of all births in the U.S. implies that the standard models are inapplicable to the study of the childbearing decisions of a sizeable part of the population as well as to the study of public policies, such as welfare reform, that attempt to influence those decisions. On the other hand, economic models of marriage, while identifying children as an important aspect of the gains from marriage, have not rigorously incorporated fertility decisions.

Recent work in consumer theory models household members as having distinct preferences and the allocation of resources within the household as the outcome of their interactions. In this setting a household with a single member is simply a special case of a household with many members. To date, there has been only one attempt to apply this type of model to the specific case of non-marital childbearing (Willis, 1995). I will first outline the basic formulation and its implications, and then discuss possible extensions.

The Willis Model:

Willis assumes a static model in which men and women each have preferences over the number and quality of their children. For generality, their preferences may differ, but there is no need that they do nor that one sex systematically cares more about the quality of their children. What distinguishes men and women is that women can bear only a limited number of children while men can bear an indefinitely large number and that men do not always know the identity of their children. Child quality is a collective good, i.e., one parent's enjoyment does not diminish that of the other parent.

First, consider a woman who is deciding on whether or not to bear and rear a child as a single mother (for exactness Willis considers the case of a woman having artificial insemination from a sperm bank). As in the static lifetime model, there is a fixed cost of a unit of child quality. Given some simplifying assumptions, the woman will have a child if and only if her income exceeds some minimum value. If she decides to have a child the quality of the child will depend positively on her income and negatively on the price of purchasing child quality.

Next, imagine that paternity is established and ask whether the father is better off if he is not forced to provide support. The answer obviously depends on his preferences. Clearly, he is more likely to be better off the higher is the quality of the child, i.e., the more the mother spent on the child from her own resources. Suppose that the father is better off. Then, the man and woman can both be made better off by pooling their resources, i.e., by getting married. The result is due to the assumption that child quality is a collective good; loosely speaking each of them gets to "consume" the entire child quality but doesn't have to pay the full amount. Moreover, the level of child quality is higher if resources are pooled.

But, there is nothing in the model that requires that the gain from the collective good be obtained within a marriage or even a cohabitation. Willis appeals to an extra-model assumption that marriage facilitates the coordination necessary to ensure the efficient allocation of child expenditures. He also develops a non-cooperative solution in which the father makes an optimal voluntary transfer, where the father takes into account that some of the transfer will not be spent on the child. Because of this, expenditures on the child will be less than in the cooperative marriage solution.

But, note that in Willis's model, the father (and mother) are better off as well if they are married. So why would a man choose out-of-wedlock fatherhood? Willis's argument, rigorously demonstrated, is that what the father loses in child quality can be made up in quantity, i.e., the father may be better off having many "low quality" children by different women, where he contributes little if any resources.

Willis then combines this analysis with a model of the marriage market in which there is income variation within the sexes. He derives the following interesting case. If females have high incomes relative to males and there are more females than males, then (1) males and females from the upper portion of the income distribution marry and bear children and (2) those males from the lower portion of the income distribution will remain single and father children from multiple women who also come from the lower portion of the income distribution. This is referred to as the "underclass" equilibrium.

Scope for further theoretical research:

The Willis model is a creative first step at modeling fertility that takes into account the separate, but intertwined, roles of men and women. There are clearly numerous potentially insightful extensions of the framework. For example, the model ignores such aspects of interactions as sexual pleasure and love, gains from co-habitation other than raising children, and the importance of proximity to children to the value of having children. Further, the model ignores other behaviors that are related to childbearing such as work, schooling, and welfare participation and the environment within which decisions are made is static and there is no uncertainty (e.g., from imperfect contraception). The framework admits to these extensions.

Data requirements:

We should not construct data sets that are specific to any single theoretical framework or that are designed to "test" specific hypotheses. As a corollary, the first dollars should be spent on obtaining good data of an objective kind on both sexes: longitudinal data on early sexual contacts, contraceptive use, characteristics of partners, pregnancies, birth outcomes, time and money resource transfers between unmarried parents, etc. Descriptive data of this kind will importantly influence future theorizing. We are a long way from thinking about rejecting theories that are anything but naive.

Social-Demographic Perspectives on Marriage and Gender

Most explanations of the current decline in the centrality of marriage depend on the benefits of marriage deriving from role specialization. This specialization into different areas is theorized to be the major benefit of marriage. Strong differences in sex-roles between men and women supported this division of labor, with men responsible for roles outside the home (employment, social status), and women responsible for roles within the home. As individuals' experience reductions in either the ability or desire to achieve this role specialization, their participation in marriage is theorized to decline. Sociology and demography often focus on two central factors theorized to reduce individuals' ability or desire for role specialization within marriage. Simply viewed, one of these explanations is female-oriented, while the other is male-oriented (Oppenheimer, Kalmijn, and Lim, 1997). This "orientation" refers to which gender's characteristics are believed to be driving the declines in the centrality of marriage. While the explanations differ in whether it is men's or women's characteristics that influence marriage patterns, they also vary in which gender is the decision-maker--that is, which gender responds to the characteristic of interest. Table 1 summarizes these theorized relationships, and they are discussed more thoroughly below.

The female-oriented approach posits women's rising economic independence as an explanation for the declines in marriage (Cherlin, 1992; Farley, 1988). Although this economic independence is theorized to influence marriage through a variety of pathways, in most explanations women are the primary actors and their personal characteristics influence their own decision-making. Women's economic independence reduces their economic need for marriage, diminishing the benefits they would gain from a marriage with traditional division of labor. Moreover, role theory points out that increasing normative acceptance and opportunities for employment also reduces the social incentives for marriage, by providing women an alternate social role to wife and mother (Scanzoni, 1975). Thus, employment opportunities are theorized to reduce women's desire for marriage by giving them other means of obtaining economic and social status.

Table 1. Hypothesized Factors Influencing Marriage

Change in Economic Opportunity		Hypothesized Effect on Marriage	Actor / Decision-Maker	Mechanism for Influencing Marriage
Men Less	*Women* More			
	✓	-	W	reduce economic need
	✓	-	W	provide alternate social roles
	✓	-	W	smaller pool of acceptable partners
	✓	+	W	expanded pool of acceptable partners
	✓	+	M	more attractive to potential partners
✓		-	M	inadequate income for marriage
✓		-	W	reduced supply of acceptable partners

The male-oriented approach emphasizes declines in men's economic position as the central cause of the decline in marriage (Oppenheimer, 1994). There is a long theoretical tradition in research on marriage in Western society that focuses on men's ability to establish an independent household as a key factor determining marriage timing (Hajnal, 1965). This theoretical perspective continues today, with the belief that men's labor market position has a strong effect on marital timing.[3] Specifically, researchers have looked to declines in the young men's labor market position during the 1970's and 1980's as an explanation for the contemporaneous retreat from marriage. Since men have the role of economic provider in a marriage with specialization, reductions in their ability to enact this role also reduce the attractiveness of marriage.

---

[3] Easterlin (1978, 1987), with his theory of the effects of relative cohort size, has been an influential proponent of the thesis that young men's labor market position has a strong influence on marital timing, as well as fertility. Although Easterlin's specific views have fallen out of vogue, there remains strong theoretical interest in the influence of men's economic well-being on marriage formation.

Although this explanation relies on men's characteristics, its proponents disagree on whether these characteristics influence the actions of men or women. Thus, this explanation ends up taking on two distinct forms. In the first, men self-evaluate themselves as having inadequate economic resources for marriage, and thus delay or do not marry. This theoretical orientation allows for variation over time or between individuals in men's perceptions of what constitutes an "adequate" income for marriage.[6] Regardless, in this model, men are the primary actors, who evaluate their own economic resources and then make decisions about the attractiveness of marriage. In the second form of this explanation, although the interest is in male characteristics, women are the primary actors. Wilson's (1987) widely discussed explanation of delayed marriage and non-marital childbearing among African-American women is a prime example of this perspective. He argues that the deteriorating labor market status of African-American males impede their ability to provide stable economic support---and thus assume their traditional role in marriage. In turn, this reduces black women's motivation to marry because of a local shortage in the supply of economically attractive men. Thus, men's characteristics are theorized to influence marriage by altering women's decision-making.

Wilson's work is one example of theories about the functioning of the "marriage market." Traditionally, the marriage market has been theorized to function to maximize role specialization. In traditional models of the marriage market, men and women choose partners based on different criteria. Since women's gain from marriage as theorized to be economic and status -oriented, a woman is expected to want a partner with the best opportunities for income and social status. Men, on the other hand, get benefits from marriage in home production and choose partners accordingly, placing greater emphasis on physical attractiveness. Changes in women's and men's economic opportunities influence their role in the marriage market. For example, if the marriage market functions to maximize role specialization (through comparative advantage), than women need to find men with greater economic opportunities than their own. Therefore, women's increased income or education would result in a smaller pool of potentially eligible partners, thus creating a barrier to their marrying, or necessitating an increase in their search time and thus delaying age at marriage (Mare, 1991; Lichter, 1990).

What if the marriage market is not operating to achieve the best matches for role-specialized marriages? Two sets of research findings suggest that the marriage market is undergoing changes. First, recent research finds that men increasingly prefer to marry economically attractive women (Goldsheider and Waite, 1986). Thus, women's expanding economic opportunities may serve to *increase* their opportunities in the marriage market by making them attractive to a larger pool of men (Lichter et al., 1992). Second, an iconoclastic view suggests that women's increased economic independence may expand, not limit, their pool of potential mates by allowing them to "afford" to marry less compensated males---presumably with personal characteristics other than economic achievement that they value.[3]

---

[6] One perspective is that men have increased the amount of income they think is necessary for a family to compensate for their increased taste for personal consumption and self-fulfillment.

To summarize, much attention has been given to two alternate factors that may be driving the declines in marriage ---women's economic opportunities, and men's economic opportunities. Both of these factors are theorized to influence marriage by altering the benefits of role specialization. There are strong advocates on both sides, and the question of which factor has been the dominant force is still unanswered. In part this debate reflects the problem that although marriage involves two actors, research often explains only one actor's decision to marry. This is both an empirical and a theoretical difficulty. Marriage requires consent and participation from both sexes. Non-marriage can result from either, or both, sexes reluctance to marry. Yet many of the factors considered in analyses of the marriage market can be interpreted as indicating a preference for marriage, as well as the individual's "marriageability." For example, do men's declining economic resources indicate their reduced attractiveness as potential mates, or a decline in their preference for marriage? As Goldscheider and Waite (1986) point out, these interpretations are mutually reinforcing and thus difficult to sort out. Our empirical observations of marriage incidence may not be very helpful in sorting out which gender is more responsible for changes in marriage (or differences between groups).

There is a need for new theoretical and analytical models of the marriage market that incorporate issues of both men and women more directly. To date, most analyses that model the marriage market do so from the perspective of women, i.e. they examine the demographic and/or qualitative aspects of the pool of eligible men that are associated with differences in the timing of marriage for women. It would be worthwhile to add to this perspective by modeling the characteristics of women that may be associated with men's behaviors in the marriage market (Lichter et al., 1992). Analytically, this becomes easier to do if men are increasingly valuing the same types of characteristics, such as employability and income, as women, instead of physical attractiveness or other "traditional" criteria. The former are far easier to measure in survey, or even aggregate level data, and lend themselves more to the types of analyses that social scientists are most familiar with. Empirical model that include the motivations and behaviors of both sexes are needed to be able to fully test the competing hypotheses discuses here. Focussing on marriage and union formation will assist in connecting the growing study of "fatherhood" to underlying demographic processes (Goldscheider and Kauffman, 1996).

As a concluding note, there is a need to reconsider our traditional adherence to a specialization-trading model of marriage which emphasizes gains from an underlying sexual division of labor between spouses (for arguments against this model, see Oppenheimer, 1994). The central challenge to our understanding of current and future trends in marriage and family formation may be the declining significance of sex-role specialization for marriage (Goldsheider and Waite, 1991). This decline not only alters the potential benefits of marriage, but it also alters the functioning of the marriage market. Cohabitation may be providing different types of unions in which choices of partners may not be well-explained by sex-role specialization. Changes in gender-role attitudes may alter individuals' behaviors within market, and their search for a marital partner. Our adherence, whether explicit or in our underlying assumptions, that marriage can be understood from a specialization model, may limit our ability to explain and understand contemporary patterns in family formation. The specialization model may continue to provide important insights, but it can not be allowed to constrain our understanding of the dramatic changes occurring in American family life.

---

[3] This view is supported by the findings that the proportion of married couples in which woman earns more than man has increased from 10 percent in 1980 to 15 percent in 1990 (Biddlecom and Kramarow, 1995).

Social-Demographic Perspectives on Fertility and Gender

The following very preliminary thoughts on this topic build on two earlier papers: first, a paper by Nathanson and Schoen, "A bargaining theory of sexual behavior in women's adolescence," published in the proceedings of the 1993 IUSSP International Population Conference in Montreal and, second, a recently completed manuscript by Schoen et al., titled "Why do Americans want children?" Underlying these papers is the notion that sexuality (Nathanson and Schoen, 1993) and children (Schoen et al., ?) constitute resources which individuals use purposefully in pursuit of goals (economic and/or social security, status, and the like) subject to structural and cultural constraints.

The more recent paper questions why Americans (or members of industrialized societies generally) continue to have children given their direct and indirect (opportunity) costs. To account for this phenomenon, the resource value of children is conceptualized (following Coleman, 1988, 1990) as a form of social capital. "Individuals and couples have powerful non-instrumental interests in social integration with family and friends and in the social and emotional help and support that social integration brings." Gender differences in the resource value of children as social capital were not addressed theoretically in this paper. The earlier paper is focused primarily on the sexual behavior of adolescent women, but does suggest a number of variables relevant to gender differences in the value of fertility-relevant resources: men's and women's economic opportunities, sexual and family ideologies affecting the relative value ascribed to women's sexual and domestic resources (by both women and men), social class and race.

Among the only detailed pieces of empirical research (of which I am aware) that lends itself to analysis of gender differences in the forgoing terms is the chapter in Elijah Anderson's book, Streetwise, titled "Sex codes and family life among Northton's youth" (1990:112-137). Streetwise is an ethnographic study of two adjacent inner-city communities, one ethnically and racially mixed and the other--Northton--black and poor. I propose, first, to examine whether the conceptual frameworks our research group has proposed make sense in light of Anderson's data and, second, to suggest, more speculatively, the changes in gender differentials our frameworks would predict, given systematic changes in the empirical circumstances described by Anderson.

The premise that sexuality and children are resources purposefully employed in pursuit of individuals' particular goals receives strong support in Anderson's account. The goals themselves are structurally highly constrained and differ profoundly between young men and women. The fundamental constraint, according to Anderson, is absence of economic opportunities for men: "The lack of family-sustaining jobs denies many young men the possibility of forming an economically self-reliant family" (112). Without viable alternatives in the job market, young men seek status in the recognition and support of their male peer group. "To many inner-city black youths, the most important people in life are members of their peer groups. They set the standards for conduct, and it is important to live up to those standards" (114). Peer group standards emphasize "sexual prowess as proof of manhood, with babies as evidence" (112). While sexual conquests are a status symbol, emotional commitment to the young woman may, on the other hand, be taken by peers as a sign of weakness. Anderson argues that young women's goals are quite different: they "dream of being the comfortable middle-class housewife portrayed on television," and offer sex as a gift in the hope--often fostered by the young man--of parlaying the gift into some semblance of the dream.

While sexuality is employed as a resource by both sexes, pregnancy and the resulting child are more clearly positive resources for the young women than the young men Anderson describes. From the young woman's perspective, pregnancy may, at the very least, increase her partner's ties of obligation. A child brings adult status, the admiration of peers, and (in the old days) a welfare check. From the young man's perspective, pregnancy and a child are potential traps, increasing his economic burdens, decreasing his freedom to come and go as he pleases, and incurring the disesteem of his peers for being "fooled."[9] As a consequence, the fact of fatherhood is frequently contested. It is an important point that pregnancy and motherhood are self-evident, fatherhood is not. Under circumstances where rights of inheritance are important and children bring major social and economic rewards, men go to considerable lengths to insure their paternity. Indeed, it has been argued that demand for this insurance was a major factor in the development of patriarchal institutions. Anderson describes circumstances at the opposite extreme: when paternity brings no rewards, men will be moved to deny it.

Indeed, perhaps Anderson has portrayed one end of a spectrum, in which sexuality is men's only social resource deployed to gain status in the eyes of peers rather than partners or kin, and children are "social capital" only for women. An obvious prediction from Anderson's data--he makes this prediction himself--is that as men acquire "a job, the work ethic, and perhaps most of all, a persistent sense of hope for an economic future...the most wretched elements of the portrait presented here begin to lose their force, slowly becoming neutralized" (137). In other words, a conventional family life depends on the availability of economic resources to men. It is not clear where this leaves women. Anderson states that the young women he studied may see themselves as "having little to lose and something to gain by becoming pregnant" (127). This suggests that insofar as women perceive themselves as having "something to lose" by becoming pregnant, they are more likely to take precautions against it, hardly a new idea.

---

[9] Clearly, not all young men correspond to the grim picture painted here--Anderson does not give percentages. His point is that the worse young men's economic prospects, the more likely is this picture to correspond to reality.

Goldscheider and Kaufman in their recent paper, "Fertility and commitment: bringing men back in" (1996) make two interesting and relevant points. They suggest, first, that declining commitment to parenthood is characteristic of men in general, not just black men in the ghetto: *"most of the retreat from children has been on the part of men. There is evidence that men increasingly view children and fatherhood primarily as responsibility and obligation rather than as a source of meaning, happiness, or stability"* (90).[1] Second, they observe that "trends that increase male involvement (in children's lives) may decrease female autonomy in decisions about whether to bear children and how to raise them" (96). In other words, women's empowerment and male involvement in childbearing and childrearing represent a trade-off.

Both Anderson's and Goldscheider and Kaufman's analyses are striking in their implications of conflict between the interests and goals of men and women. Increases in men's and women's economic opportunities may have opposite consequences for their commitment to children; increases in women's empowerment may be at the cost of male absence. Despite this emphasis on conflict and on costs, both men and women continue to intend and to have children. We have advanced the notion of children as social capital to account for this phenomenon. Perhaps one of the things that happens at higher levels of economic opportunity is that the social ties generated by children become a more important resource for men without losing their value on this dimension for women.

Social-Psychological Perspectives on Fertility and Gender

The major theoretical perspective on fertility in social psychology conceptualizes fertility motivation as a function of the costs and benefits that individuals perceive in having a child (Seccombe, 1991). In various theoretical frameworks, these perceived costs and benefits are alternatively formulated as the value of children (Arnold et al., 1975; Hoffman and Manis, 1979), or as childbearing values and disvalues (Beckman, 1987), utilities (Townes et al., 1980), or attitudes (Davison and Jaccard, 1976). These models, of course, also posit a role for other constructs influencing the extent to which the childbearing cost-benefits will be reflected in intentions and/or behavior, such as alternative sources of benefits, barriers, and facilitators (Hoffman and Hoffman, 1973).

This cost-benefit model of fertility motivation provided the underlying conceptual framework for Arnold et al.'s (1975) milestone cross-national study of fertility and fertility intentions. Responses to the question "what would you say are some of the advantages or good things about having children compared with not having children at all?" were coded in 65 categories, organized around nine broader values derived from Rokeach (1960). In Hoffman and Manis's (1979) report on the U.S. data in the cross-national study, there was support for the cost-benefit model in that the specific satisfactions most strongly associated with fertility intentions were reported less frequently in the U.S. than in developing countries, but within the U.S. these satisfactions were cited more frequently in the demographic subgroups with higher fertility desires. In other cross-sectional analyses, a relatively small number of specific responses were associated with variations in desired family size. Higher desired family size was related to perceiving children as providing "something useful to do," making you feel like "a better person," and having economic utility.

---

[1] Given this analysis, it is striking that data from the NSFH presented in the Schoen et al. paper show very little gender variation in fertility intentions.

At the same time, many other specific satisfactions were unrelated to number of children desired, e.g., affection, stimulation and fun, giving purpose to life, and immortality. And other work has found no relationship between the perceived values of children and actual fertility (Heltsley, Warren, and Lu, 1981). Hoffman and Manis (1979) noted many potential complexities in conceptualizing the association between childbearing's perceived cost-benefits and fertility. For example, some perceived benefits may be obtained by having only one child, with little marginal benefit accruing for additional children, while other benefits do vary with the number of children. The value of a later child (for example, as a companion to the first) may be different than the value of a first child. Some values might relate to desire for a child at a particular point in the adult's life rather than to simply the total number of children. Overall, these authors note that "it was not expected that the relationship between any particular value and fertility would necessarily be monotonic." (p. 592)

Use of the cost-benefit perspective on fertility motivation to understand heterosexual couple behavior presents several issues and challenges. An initial issue concerns gender differences in the perceived value of children. Research generally finds that females report greater perceived benefits and lower perceived costs to having children than do males (Hoffman and Manis, 1979; Miller, ?). This finding is assumed to make sense, since bearing and rearing children are so emphasized in female gender socialization. There is indeed evidence that in both genders, perceiving greater benefits to having children is associated with traditional gender attitudes (Heltsley, Warren, and Lu, 1981). However, an alternate reading of gender socialization might lead us to expect that men, not women, would perceive lower costs to childbearing. And, Hoffman and Manis's (1979) finding that among African-Americans, men rather than women more often perceived stimulation and fun, and expansion of the self, to be advantages of having children, is also noteworthy--and unexplained--in the conventional gender interpretation.

A second issue concerns the relative influence of males and females in fertility decision-making. Small group research indicates that in mixed-sex dyads, men tend to be more influential than females (Aries, 1996). Some studies indicate that this holds true specifically for attitudes about contraception. For example, when members of college dating couples are asked individually to express their opinion about contraception, and then asked to write a joint opinion, the latter is more similar to the male's than the female's individual view (Gerrard, Breda, and Gibbons, 1990). However, the same study also showed that the couple's contraceptive behavior was actually more similar to the female's individual opinion. Beckman (1984) and earlier studies have also found that when members of married couples disagree about whether to have an additional child, the wife's preference is far more often the one actualized in later behavior, although the inclusion of husbands' preference and other husband variables does increase the predictive power of explanatory models for fertility. It should be emphasized that these findings may not be generalizable to other populations. While females may have greater control of contraception in college dating couples, this may not be the case in noncollege couples. The greater female control of fertility apparent in married couples may not be evident in nonmarried couples.

There appears to have been little recent investigation of why women generally have more decision-making influence over fertility, and factors associated with variation in each gender's relative influence. In older work, Rainwater (1965) found that wives' preference for smaller number of children is associated with "joint" as opposed to "segregated" conjugal relationships. There has been little consistency in research findings about the relationship between couples' patterns of decision-making influence and fertility preferences or behavior (Back and Haas, 1973). For example, in a Puerto Rican study, Hill, Stycos, and Back (1959) found no linear association between an attitudinal complex in males they labeled "machismo" (favoring early sex, high fertility, not using male contraception, domination of women) and couple's use of birth control. The highest scoring men on the overall attitude measure tended to be very young or very old, leading the investigators to conclude that their actual influence on fertility was minimal.

We can suggest several guidelines for future theory and research on social-psychological factors in fertility. First, motivation for childbearing and motivation for contraception have tended to be studied in separate literatures and in different populations (married adults vs. unmarried adolescents). It is easy to uncritically assume that one is the obverse of the other, i.e., that low motivation for childbearing corresponds to high motivation for contraception, and vice versa. A more comprehensive theoretical approach is needed in which both constructs play a role, and in which it is recognized that individuals' motivations are not necessarily consistent. Such models need to take into account that the perceived costs and benefits of contraception are relatively immediate or short-term, while the perceived costs and benefits of childbearing are more distal and long-term. Conceptualizing how these costs and benefits vary as a function of individuals' contexts is also essential. The utility of social-psychological models will be increased, for example, if individuals report on the costs and benefits they perceive to childbearing for persons of different ages, for persons who are married vs unmarried, for persons who have completed vs not completed education, and the like.

Second, the conceptualization of fertility decision-making itself, and the role of gender in it, needs much further development. In the field of family studies, in recent years there has been a general retreat from the concept of marital (or relationship) decision-making influence (or power) because of the inability to find congruence between behavioral and self-report measures of this concept, and the inability to find congruence even between behavioral measures in different domains (Cromwell and Olson, 1975).

Although these issues are problematic for the assessment and conceptualization of power as a general construct in close relationships, they do not need to be resolved in order to study decision-making influence over actual fertility behavior in its own right.

Summary

Although these essays represent the uncoordinated efforts of a multi-disciplinary group of social scientists, there is a strong commonality and complementarity in their central themes. At the more general level, there is consensus that marriage and fertility outcomes should be viewed in decision-theoretic terms at an individualistic level. Social science theories of union formation and fertility have not been sufficiently cognizant of the fact that there are multiple decision-makers. Within a theoretical perspective in which individual decision-makers are at the foundation, it is important to understand the distinct motivations and constraints faced by men and women (both within and outside of unions). However, because voluntary union formation and childbearing usually involve cooperation in an essential way, behavioral theories must also model the process by which men and women interact. In formulating such theories, these essays noted the importance of incorporating the following ingredients: (i) gender differences in the value of children and marriage that may be motivated by conflicting interests and goals of men and women in childbearing, (ii) differential and changing economic and marriage market opportunities of men and women, (iii) gender roles within marriage, (iv) investments in child "quality". It is encouraging to observe that recent theoretical work has begun to be produced in all of the social sciences represented by these essays to address these issues.

Recommendations

Theory both guides and is guided by data. It is therefore necessary that both theoretical and empirical research find support. As these essays suggest, disciplines do operate within different paradigms and data requirements while overlapping are not identical. There is common agreement, however, that high quality objective data should be collected on both men and women in parallel.

Recommendations

Theory and Research Needs

1. Any theoretical advances need to incorporate declines in gender-role specialization and increases in the direct and indirect costs of children---all of which traditional theories argue would diminish the benefits of marriage and childbearing.

2. Theoretical models of the union formation and fertility need to more explicitly address the separate, but intertwined, roles of men and women.

3. We need to expand the scope of our theories to assist in explaining less traditional family formation behaviors, such as non-marital childbearing and cohabitation.

4. More research is needed on gender differences in the value of children and marriage. This includes improved understanding of different, and potentially conflicting, motivations and constraints faced by men and women.

5. More work is needed to tease out the relative importance of differential and changing economic and marriage market opportunities for men and women.

6. Greater attention should be paid to changes in gender roles within and outside of unions. This needs to include greater attention to subgroup variations in gender role attitudes and norms.

7. More explicit attention needs to be given to each gender's motivation to invest in child quality, and their personal assessment of this concept.

8. We need to give greater research attention to the relative influence of men and women in fertility decision-making, and factors associated with variation in each gender's relative influence.

Data Needs

1. At this point, data sets should be collected to test the broadest range of hypotheses, without adherence to any single theoretical framework. Descriptive data will importantly influence future theorizing.

2. Data must be collected from men and women about key demographic behaviors, such as union formation and fertility. Samples need to be developed that include both dyads and individual respondents.

3. Self-reported attitudinal measures are important for developing an understanding of motivations and values.

4. Greater information about gender-role attitudes need to be collected. In particular, greater information about men and women's attitudes toward *male* gender roles need to be added to the more traditional measures of attitudes towards women's gender roles.

5. We cannot assume that survey measures developed for women have equal validity or reliability for men. Qualitative and exploratory studies will be important for identifying and testing appropriate measures of men's fertility and union formation attitudes and behaviors.

References

Anderson, E. 1990. *Streetwise: Race, class, and change in an urban community.* Chicago: University of Chicago Press.

Arnold, F., Bulatao, R.A., Chung, B.J., Fawcett, J.T., Iritani, T., Lee, S.J., and Wu, T.S. 1975. *The Value of Children: A cross-national study.* Honolulu, HI: East-West Population Institute.

Aries, E. 1996. *Men and Women in Interaction: Reconsidering the differences.* New York: Oxford University Press.

Back, K. and Haas, P. 1973. Family structure and fertility control. In Fawcett, J.T. (Ed.), *Psychological Perspectives on Population.* New York: Basic Books.

Becker, G.S. and Lewis, H.G. 1973. On the interaction between quantity and quality of children. *Journal of Political Economy,* 81, S279-S288.

Beckman, L.J. 1984. Husbands' and wives' relative influence on fertility decisions and outcomes. *Population and Environment,* 7, 182-197.

Beckman, L.J. Changes in motivation for parenthood among young married couples. *Population and Environment: Behavioral and Social Issues,* 9, 96-110.

Biddlecom, A. and Kramerow, E. 1995. From 'Spouse of Head' to 'Householder': Changing patterns in married women's headship in the U.S., 1980-1990. *Journal of Family and Economic Issues,* forthcoming.

Cherlin, A.J. 1992. *Marriage, divorce, remarriage.* Cambridge: Harvard University Press.

Chiappori, P.A. 1992. Collective labor supply and welfare. *Journal of Political Economy,* 100, 437-467.

Coleman, J.S. 1988. Social capital in the creation of human capital. *American Journal of Sociology.* 94 (supl), S95-S120.

Coleman, J.S. 1990. *Foundations of Social Theory.* Cambridge: Belknap Press of Harvard University Press.

Cromwell, R. and Olson, D. 1975. *Power in Families.* New York: Sage Publications.

Davidson, A.R. and Jaccard, J.J. 1976. Social-psychological determinants of fertility intentions. In Newman, S.H. and Thompson, V.D. (eds.), *Population Psychology: Research and Educational Issues.* Washington, DC: U.S. Government Printing Office, pp. 131-37.

Easterlin, R.A. 1978. What will 1984 be like? Socioeconomic implications of recent twists in age structure. *Demography,* 15, 397-432.

Easterlin, R.A. 1987. *Birth and Fortune.* Chicago: University of Chicago Press.

Farley, R. 1988. After the starting line: Blacks and women in an uphill race. *Demography,* 25, 477-495.

Gerrard, M., Breda, C., and Gibbons, F. 1990. Gender effects in couples' sexual decision-making and contraceptive use. *Journal of Applied Social Psychology,* 20, 449-464.

Goldscheider, F.K. and Waite, L.J. 1991. *New Families, No Families?* Berkeley: University of California Press.

Goldscheider, F.K. and Waite, L.J. 1986. Sex differences in the entry into marriage. *American Journal of Sociology*, 92, 91-109.

Goldscheider, F.K. and Kaufman, G. 1996. Fertility and commitment: Bringing men back. In Casterline, J., et al. (Eds.) *Fertility in the United States: New Patterns, New Theories*. New York: The Population Council.

Hajnal. 1965. Eastern Marriage Patterns in Perspective. In Glass, D.V. and Eversley, D.E.C. (Eds.), *Population in History: Essays in historical demography*, ed. Chicago: Aldine.

Heltsley, M., Warren, R., and Lu, H. 1981. Determinants of family size for low-income families: Sex role orientation and value of children. *Home Economics Research Journal*, 9, 284-296.

Hill, R., Stycos, J.M., and Back, K.W. 1959. *The Family and Population Control: A Puerto Rican experiment in social change*. Chapel Hill: Univ of North Carolina Press.

Hoffman, L., and Hoffman, M. 1973. The Value of Children to Parents. In Fawcett, J. T. (Ed.), *Psychological Perspectives on Population*. New York: Basic Books.

Hoffman, L., and Manis, J. 1979. The value of children to parents in the United States: A new approach to fertility. *Journal of Marriage and the Family*, 583-596.

Hotz, V.J. and Miller, R. 1988. An empirical analysis of life cycle labor supply and fertility. *Econometrica*, 56, 91-118.

Hotz, V.J., Klerman, J.A., and Willis, R.J. 1997. The economics of fertility in developed countries. In Rosenzweig, M.R. and Stark, O. (Eds.), *Handbook of Population and Family Economics*. New York : Elsevier, 1997.

Lichter, D.T., McLaughlin, D.K., Kephart, G., and Landry, D.J. 1992. Race and the retreat from marriage: A shortage of marriageable men? *American Sociological Review*, 57, 781-799.

Lichter, D.T. 1990. Delayed marriage, marital homogamy, and the mate selection process among white women. *Social Science Quarterly*, 71, 802-11.

Mare, R.D. 1991. Five decades of educational assortative mating. *American Sociological Review*, 56, 15-32.

Miller, W.B. 1992. Personality traits and developmental experiences as antecedents of childbearing motivation. *Demography*, 29, 2, 265-85.

Nathanson, C.A. and Schoen, R. 1993. A bargaining theory of sexual behavior in women's adolescence. *Proceedings of the Montreal International Population Conference of the International Union for the Scientific Study of Population*, 3, 113-20.

Oppenheimer, V.K. 1994. Women's rising employment and the future of the family in industrialized societies. *Population and Development Review*, 20, 293-342.

Oppenheimer, Valerie Kincade, Matthijs Kalmijn and Nelson Lim. 1997. Men's Career Development And Marriage Timing During A Period Of Rising Inequality. *Demography*, 34, 311-330.

Rainwater, L. 1965. *Family Design*: Marital sexuality, family size, and contraception. Chicago: Aldine Publishing.

Rokeach, M. 1960. The Open and Closed Mind. Investigations into the nature of belief systems and personality systems. New York: Basic Books.

Scanzoni, J.H. 1975. *Sex Roles, Lifetstyles, and Childbearing: Changing patterns in marriage and the family*. New York: Free Press.

Schoen, R., Kim, Y.J., Nathanson, C.A., Fields, J., and Astone, N.M. 1996. Why do americans want children? Hopkins Population Center Papers on Population, WP 96-09.

Seccombe, K. 1991. Assessing the costs and benefits of children: Gender comparisons among childfree husbands and wives. *Journal of Marriage and the Family*, 53, 191-202.

Smith, M.B. 1973. A social-psychological view of fertility. In Fawcett, J. T. (Ed.), *Psychological Perspectives on Population*. New York: Basic Books.

Townes, B.D., Beach, L.R., Campbell, F.L., and Wood, R.L. 1980. Family building: A social psychological study of fertility decisions. *Population and Environment: Behavioral and Social Issues*, 3, 210-220.

Willis, R.J. 1973. A new approach to the economic theory of fertility behavior. *Journal of Political Economy*, 81, S14-S64

Willis, R.J. 1995. A theory of out-of-wedlock childbearing. mimeo, *University of Michigan Sociological / Demographic Perspectives on Marriage*.

Wilson, W.J. and Neckerman, K. 1987. Poverty and Family Structure: The widening gap between evidence and public policy Issues. In Wilson, W.J. (Ed.), *The Truly Disadvantaged*. Chicago: University of Chicago Press.

APPENDIX C

THE MEANING OF FATHERHOOD FOR MEN

Koray Tanfer
Battelle Memorial Institute

Frank Mott
Ohio State University

Introduction

Family patterns are changing rapidly in the United States. The decline in marriage has been accompanied by a rise in divorce and a decline in the likelihood of marriage following a divorce, which has only been partially countered by the rise in cohabitation. Moreover, the traditionally very close link between marriage and childbearing has weakened, with corresponding increases in the proportion of children born out-of-wedlock, either in nonmarital cohabitation or outside of a union altogether. Such changes, inevitably, shift the roles of men and women, not only in relation to each other, but also in relation to their children. These changes in family patterns signal a weaker commitment of women to men and of men to women; a weaker commitment by the partners to their relationship, and very possibly a weaker commitment to their children.

It is evident from these documented trends that women, and disproportionately men, are increasingly rejecting the conventional roles and obligations of a traditional family. The rise in divorce and out-of-wedlock childbearing has been paralleled by low levels of financial and social support provided by absent fathers to their children. Conflicting evidence shows that, on the one hand, there are men who increasing view children and fatherhood primarily as nothing but responsibility and obligation, and, on the other hand, there are men who emphasize the role of children as a source of meaning, happiness, and stability.

Research has also shown that children are increasingly seen as interfering with the spousal relationship (Veroff, Douvan, and Kulka, 1981). While young men and women in the U.S. claim to value marriage and children, their attitudes toward family formation, and the rising cost of child rearing appear to be in conflict with their increasing materialism and increasing aspirations for expensive consumer goods (Crimmins, Easterlin, and Saito, 1991). Importantly, adolescent males are significantly more likely than females to value such goods and rate owning such goods as very important, suggesting a higher priority of spending for themselves rather than providing for the expenses of a family (Crimmins, Easterlin, and Saito, 1991).

Before we proceed further, a few clarifications are in order. A man becomes a *father* when he has his first child; this status is fixed, such that, once a man becomes a father he is always a father. He may subsequently have more children, or his responsibilities and activities may change due to divorce, or children leaving home, or for other reasons, but he is always a father. *Fatherhood*, then, is a status attained by having a child and is irrevocable (unless an only child dies). In the contemporary research literature, the term fatherhood is used interchangeably with the term *fathering* which includes, beyond the procreative act itself, all the childrearing roles, activities, duties, and responsibilities that fathers are expected to perform and fulfill. Furthermore, while these definitions once implied *biological* fathers only, with the rapid changes in the family structure they came to include non-biological fathers as well. We follow the common practice in the research literature and use "fatherhood" to include childrearing responsibilities and fathering activities as well, regardless of whether they are carried out by biological or nonbiological fathers.

The next point to explores is, whose concept of fatherhood we are interested. While there are several perspectives that are equally relevant e.g., the mother's, the child's the society's, for the purposes of this document we, almost exclusively, focus on "the meaning of fatherhood for men," as defined by men.

A final point is how to operationalize "meaning." One approach is to examine attitude-driven dimensions of what men think and believe fatherhood means to them. Another approach is to focus on the behavior-driven aspects and to examine what men think they should be doing (e.g., parenting roles, responsibilities, duties), and what they actually are doing. Which approach is taken depends on which definition of fatherhood we adopt. If we stay with fatherhood as the status of being a father, then the meaning of fatherhood derives from the attitudinal perspective. If we adopt the definition of fatherhood that includes fathering activities, then the meaning of fatherhood includes the behavioral perspective as well. The common practice in the research field seems to be to tie the meaning of fatherhood to the roles men should play, often as defined by men, women, and children. We base much of what we say on this supposition.

The Knowledge We Have

Research and evidence on fatherhood is far more abundant now than it has ever been; thousands of research papers and articles on related topics have been published over the last quarter of a century. Several excellent reviews and compilations have summarized the literature rather comprehensively. We draw heavily from these reviews and a few seminal works to present a summary of what is known about the "the meaning of fatherhood for men." In doing so, we emphasize two emerging themes: the changing role of fathers over time, and the arising of two seemingly conflicting trends -- the nurturing, caring, emotionally attuned father who enters fatherhood consciously and performs his duties conscientiously versus those who may not have wanted to become fathers, who deny paternity, who are absent from the home, and shirk their parental responsibility and obligations.

The Historical Account

It is clear from an essay by Demos (1986) outlining the changing role of fathers in western societies over the past several centuries that the pattern of change is not linear but much of it has occurred in the twentieth century. Further, the changing role of fathers is only a part of the larger changes in the American family, succinctly summarized by Cherlin (1981) and others (e.g., Thornton and Freedman, 1983).

In the traditional model of fatherhood, fathers played a dominant role in the lives of their children, assuming a broad range of responsibilities defining and supervising the children's development. Domestic control was largely in the hands of men; wives were expected to defer to husbands on matters of childrearing. A father's moral role persisted through childhood into adult life. His influence was pervasive and usually exceeded the mother's responsibilities over the child (Rotundo, 1985). In the beginning of the nineteenth century, with the shift away from an agrarian to an industrial mode of production, the paternal control over children began to erode. As men's economic roles increasingly drew them outside the home and into the market place, women extended their sphere of domestic influence (Filene, 1986; Lasch, 1977). An increase of affective ties within the family reshaped the nature of parenthood and parent-child relations (Shorter 1975; Stone, 1979). The change in the family and parental division of labor was the beginning of a shift in the balance of power within the family.

The spatial separation of work and home helped revise marital and parental roles. For fathers, this was the beginning of an almost exclusive emphasis on economic responsibilities, which naturally, curtailed the men's day-to-day contact with their children. Demos (1986) writes that the separation of work and family life led to the disappearance of certain key elements of traditional fatherhood (e.g., father as moral overseer), and to the transformation of others (e.g., father as role model). Men still continued to act as disciplinarians in the family, but their removal from the home weakened their tie to the emotional bonds that form between generations in a family (Rotundo, 1985). The father now derived his status from the outside world, from his place in the market place. His occupational standing, his economic power established not only his authority in the home, but his worthiness as a husband and father as well. With this movement from ascribed value to achieved value throughout the nineteenth century, an erosion in the role of the fathers began. Convincing evidence of this shift is the change in custody practices. Until about the mid-nineteenth century, custody following marital disruption was typically awarded to fathers; by the end of the century children increasingly remained with their mothers when marriages dissolved. Early in the twentieth century, the practice of granting custody to mothers was sanctified in the doctrine of "the tender years" which held that the children's interests were best served when they were raised by their mothers, whose parenting skills were ordinarily superior to those of their husbands.

This is not to say that fathers completely relinquished their authority. On the contrary some fathers were probably unwilling to cede so much of their children's supervision to the mothers and became more involved in the day-to-day upbringing of the children. It seems likely, however, that the number of these actively involved fathers declined throughout the nineteenth century (Filene, 1986), and a more distant and detached style of fatherhood role, restricted largely to the role of fathers as "good providers," emerged.

With the possible exception of the Depression and war years, when many men were unable to live-up to this image, the image of the father as good provider remained intact through the second World War years, until the men returned from the war (Benson, 1968). During the Depression years, the strict division of labor that existed heretofore was abandoned by necessity as women were forced to take up a more active economic role, and men were obliged to share domestic chores. But it seems this was a temporary setback, as the post-World War II period appeared to strengthen the traditional family by strengthening the gender-based division of labor in the family, despite expanding economic roles of women during the war years.

This domestic order remained basically unchallenged until the late 1960s and early 1970s when the confluence of a number of trends fundamentally transformed the family. Economists, sociologists, and demographers continue to debate the exact determinants of this change and argue on how much weight to assign to cultural versus structural factors. Feminist scholars contend that the domestic accord regulating the division of labor within the family was already problematic, long before the so-called feminist revolution. Barbara Ehrenreich (1983) argued that concurrent with, if not prior to, the reawakening of feminist consciousness men were experiencing their own resentments about the burdens of the good provider role. She contends that as early as in the 1950s men were gradually retreating from this role because they felt socially and emotionally imprisoned by the narrowly defined masculine role and were interested in shedding the exclusive responsibilities of providing for their families, independent of the feminist discontent. What followed, Ehrenreich argues, was a male revolt that occurred in tandem with the feminist revolution of the 1970s, both of which helped reorder domestic life and produced a family form singularly different from the traditional model that had emerged in the late nineteenth century.

In contrast to this weighty account of cultural discontent, economists argue that it was the economic expansion of service jobs and growth of wage rates for female employment that drew women into the labor force, and forced a change in the domestic order. Sociologists and demographers provide differing accounts based on declining fertility rates and increasing divorce rates as well as rising educational levels of women which made work outside the home more attractive than full-time mothering. Regardless of which explanation is more credible, it is clear that the changes in the family and the decline of the good-provider role came about when social structural changes converged with ideological shifts in gender roles. Furstenberg (1988) states that these changes were in effect sociologically "over-determined," meaning that changes in the family and in the meaning of fatherhood would have happened even if some of the social structural or ideological changes had not occurred when they did.

The Contemporary Perspective

As we've stated above, the contemporary picture of fatherhood as reflected by the current research is one of Dr. Jekyll and Mr. Hyde. On the one hand we have the nurturant, caring, emotionally attuned parents who are changing diapers, reading bed-time stories, or shooting hoops with the kids, all the while bringing home the bacon. On the other hand we have men who deny their paternity, and we have absent fathers, fathers who are not absent but have no involvement with their kids, and men who shirk their obligations and refuse to support their children. What accounts for this discordant picture?

The contradiction emerges directly from the historical account we've just presented. As men escaped from the excessive burdens of the good provider role, they were also freed to participate more fully in the family. Yet, they had also been freed to flee from commitment and from family responsibilities altogether. To the extent that married men have internalized the "full participation" paradigm, when they divorce and typically are expected or able to fulfill only the "good provider" role, resentment sets in. This, then, can lead to total rejection of all roles (i.e., "If I can't have the fun part of the father role, then I don't want any"). Evidence for the flight from commitment and responsibility is provided by the decline in the marriage rate and the rise in the divorce rate. The parallel rise in cohabitation also reflects men's and women's unwillingness to commit to and support a traditional family. Let us briefly review what is known about the retreat from paternal obligations, then we shall review the evidence on the increasing involvement of fathers with their children and the consequences for children and spouses.

Eggebeen and Uhlenberg (1985) have documented the declining involvement of men in families between the 1960-1980 period using data from the 1960, and 1970 decennial censuses and the 1980 Current Population Survey. They estimated a 43 percent decline in the average number of years that men between the ages 20 to 49 spend in families with young children falling from 12.3 years on average in 1960 to just 7.0 years in 1980. Later marriage, reduced fertility, and increasing rates of marital dissolution have all contributed to this sharp decline. Eggebeen and Uhlenberg interpret these results to mean that the opportunity cost of fatherhood is rising as the social pressure for men to become fathers declines. In essence, fatherhood is becoming a more voluntary role that requires a greater degree of personal and economic sacrifice. Now, if this were the case, as more sacrifice is required, fewer men would assume this role, and those who choose to make this sacrifice will be a highly self-selected group among the most committed and dedicated. Yet, this view is not consistent with much of the available evidence. For example, we know that a growing proportion of couples who conceive out of wedlock elect not to marry (O'Connell and Rogers, 1984). There is a widespread reluctance among unmarried fathers to assume economic responsibility for the children they have sired. The proportion of unmarried men who contribute to the support of their children has declined over the past few decades. We also have evidence that many males simply do not even acknowledge the existence of children they do not see or support. A majority of all men who are required to pay child support do not fully comply, and a significant proportion of men leave their wife or partner without any child support agreement or arrangement. Furthermore, often the amount of payment is so low that it only rarely pulls children out of poverty. More disturbingly, studies of men's ability to pay child support have found that most fathers could comply with court orders and still live quite well after doing so (Weitzman, 1985).

While there is a fairly common belief that men do not pay child support because of insufficient enforcement, the more realistic and intractable problem may well be that there is a very loose psychological attachment between noncustodial fathers and their children. Statistics on the amount of contact between noncustodial fathers and their children is alarmingly low, particularly after a lengthy separation (Mott, 1983; Furstenberg, 1991; Marsiglio, 1998). The provision of child support is also closely related to the amount of contact with the children, which in turn is strongly associated with men's socioeconomic position (Seltzer, Schaeffer, and Charng, 1989). Significantly, and surprisingly, support and contact figures for never married fathers appear to be as high as the figures for men who were once wed to the mothers. If these figures continue to hold, then there is not much advantage gained by the children of noncustodial fathers for having been born in wedlock.

Research on the more caring, nurturing, emotionally and physically involved fatherhood is no less abundant. The growing child-developmental literature on fatherhood has focused largely on the consequences of such involvement especially during infancy and early childhood for their cognitive and emotional gains. While it would be a seemingly obvious proposition to most of us, that fathers' consistent and substantial involvement in child care would benefit the child, this appears to have not been well established. The relationship between paternal involvement and children's well-being seems to be mediated by a number of other conditions that involve the father, the mother, and the child. In other words, increased paternal involvement does not automatically result in improved child outcomes. Nor is it clear whether the father's involvement provides unique nurturance that can not be as readily provided by substitute caregivers.

A more unresolved question is the extent to which fathers actually involve themselves in child care. It appears, from a variety of data sources, that most fathers still do very little child care, especially when the children are very young. To be sure, there has been a change in the meaning of fatherhood, as reflected in both the attitude and the behavior of fathers, largely as a result of a general shift in less gender-specific family roles (Thornton and Freedman, 1983; Stein, 1984). But, Pleck (1983) and others, who have done extensive research on this question, has concluded that most of these changes have been relatively modest. It appears that, especially among younger people, men have reduced the hours they spend at work in favor of home activities while women have followed the opposite course. There is a corresponding increase in the amount of time spent by men on activities that have traditionally been performed by women (Juster and Stafford, 1985). Pleck's analysis of time diaries also show that fathers spend substantially more time in domestic and child care activities in households when mothers are employed, but that men still fall far short of assuming an equal load. More interestingly, men in families with young children do less than those in households with no children or with older children. Baydar and Brooks-Gunn (1991) argue that even when men do spend a substantial amount of time with their children, the quality of involvement is not high, and therefore fathers' involvement is not an important or necessary element of children's development. A number of others (e.g., Lamb, 1976, 1877; Gunsberg, 1982) argue that resident fathers do play a significant role in their children's growth and development. Evidence from studies of fatherhood after divorce or separation shows much the same pattern, except generally noncustodial fathers are found to be even more marginal. Typically, fathers, if they remain at the scene at all, play a recreational rather than an instrumental role in their children's lives. Clearly, the effects of a number of confounding factors need to be disentangled before we can get a clear picture of the magnitude of change in the fathering patterns and its effects on children. In sum, there seems to be compelling evidence of a change in the contemporary meaning of fatherhood for men, but not so much that men have become equal partners in parenthood.

The Future of Fatherhood

The only thing we can say with some confidence on the current status of fatherhood research is that there is very little consensus and much of the work is heavily value laden. Having said that, we hasten to add, that the lack of consensus on the "meaning of fatherhood" among researchers is not surprising because there is no consensus among the fathers, the mothers, or the children, either. In fact, these discrepant views of fatherhood by the interested parties lie at the root of the political squabbles in the family arena. Furthermore, such differences are an important predictor of marital and relationship dissolution, as well as how successfully children are raised following such relationship transitions.

One thing is for sure, a change has occurred in the way fatherhood is viewed and practiced. It is hard to imagine a scenario that would restore the form of family that was common a generation or two ago. It is not only unlikely that the traditional roles could be restored, but also further changes will undoubtedly occur in the roles of women and men. For example, if the proportion of working mothers with young children continue to increase, there will be more pressure on fathers (or others) to share more of the child care. The real question is whether men's attitudes and behavior will fall in line (willingly or grudgingly) as they are increasingly pressured by their partners and the society at large to help out more, or whether will they simply flee. Convincing fathers to assume a greater share of child rearing responsibilities might prove to be a more formidable task when the children are not born and raised in traditional two-parent intact families.

There is a fair amount of agreement on the "flight from commitment," the male version of liberation (Ehenreich, 1983), and the end of the "good provider" role, but not on its "legitimate successor" primarily because it "has not yet appeared on the scene" (Bernard, 1981). Demos (1986) and Rotundo (1985) in separate assessments of the future of fatherhood express similar apprehensions about the growing trends toward absence of fathers from families and their apparent unwillingness to support their children when they live apart. Rotundo sees this as a dramatic defiance of the notions of "modern fatherhood" that is "consistent with "an extreme strain of male individualism that reacts to family responsibility as a quiet form of tyranny.""

The optimistic view in the research literature is one of a rising interest in fatherhood, and the emergence of a "new" father. This new father is androgynous and a full partner in parenthood. Not everyone seems to share this view. Rotundo and others question whether the androgynous fatherhood will emerge as the predominant model, even in the middle class where it seems to have been championed the most. For example, Lamb et al. (1987) distinguish three different aspects of paternal involvement in child rearing: *availability*, representing the lowest level of involvement; *interaction*, an intermediate level of involvement, and *responsibility*, the highest level of involvement. National level data indicate that while there has been a slight increase in the level of involvement, as late as at the end of the 1980s, paternal involvement in childrearing has remained dismally low (Lye, 1991). Fathers are *available* only a few hours a day, and certainly much less (roughly one-third to one-half as long) than are mothers; fathers rarely assume *responsibility*, and, fathers spend very little time *interacting* with their children, especially if they are girls.

We are inclined to agree with Furstenberg that two discrete male populations may emerge as we drift to a more voluntaristic notion of parenthood: those who embrace fatherhood and those who flee from it. It is also very likely that men will migrate from one category to the other throughout their lifetime. In doing so many men who may have abandoned their biological children may end up assuming paternal responsibilities for a new set of children, if not their own then someone else's. Yet, this is not to say that they will assume equal responsibility in parenting.

A corollary concept that has emerged is that of "social fathering," which is being commonly used in the literature to help explain why contact between noncustodial parents (usually fathers) and children typically decreases over time. This perspective suggests that biological ties to children become less important when the biological children live elsewhere; and further any children who do reside with the father (e.g., those from a remarriage) receive more attention. Seltzer and Brandreth (1994) show that the attitudes of nonresident fathers toward paternity varies by resident child characteristics rather than biological linkages. Furstenberg and colleagues suggest that biological parenthood may be giving way to social parenthood.

Theoretical Approaches

Much of the research on fatherhood is characterized by a conspicuous absence of a unifying theoretical framework. Researchers have borrowed liberally from psychology, sociology, social-psychology, child and adult developmental perspectives, and from economic theories to guide their work. Some of these approaches overlap to a great degree, yet, no one theory or conceptual framework stands out. Below we review a few of these approaches that are used more commonly and seem to be relatively fruitful.

Structural Functionalism

The "dual spheres" ideology is imbedded in one sociological perspective, structural functionalism, that assigns particular importance to the nuclear family form and its gender-based division of labor. Accordingly, in the homemaker-breadwinner ideology, the core element of the ideal family is the distinction of labor and authority between husbands and wives, and between parents and children. Further, the nuclear family is best suited to functions of childbearing and rearing, in which men are responsible to provide financial support for the family (the good provider role), and women are responsible for socialization and emotional stability of the children (Malinowski, 1913; Murdock, 1949; Parsons, 1955; Bernard, 1983). That is one important reason why early studies of the family tended to focus almost exclusively on the experiences of women, and continue to do so albeit to a lesser extent. Using this reasoning, the functionalist view would not predict that men would reject the expectations of the good-provider role. Yet we have seen the weakening if not the complete collapse of the good-provider role (Ehrenreich, 1983; Bernard, 1983).

Conflict Theory

A common thread that runs through many versions of the conflict theory is the acknowledgment of the struggle for power, including that between genders. Accordingly, men, in general, having an advantage over women in attaining socially- and economically-valued resources, manipulate the power gained with this access to perpetuate their dominance which is reflected in the gender-based division of domestic labor, including child care. In other words, men maintain their power over women by refusing to engage in the "woman's job of parenting," because in our society (and elsewhere) "childrearing" places one in a powerless position, while avoiding child-rearing results in power and prestige (Franklin, 1988). Conflict theory also specifies a class-effect and thus recognizes a gender-class interaction in the defining of the parenting roles and the meaning of fatherhood for men.

Gender Display and Hegemonic Masculinity

According to West and Zimmerman (1987), gender is a performed activity which is characteristic of situations and interactions. Based on cues and stereotypes, actors display certain genders within interactions, and perceivers interact on the basis of these expressions of gender. Actors are held accountable for displaying and reconfirming the "appropriate" gender in their interactions. Gender display typically involves highlighting the differences between masculinity and femininity. For example, doing housework has been a symbolic affirmation of women as good wives and mothers, while doing market work has been a symbolic affirmation of men as good husbands and fathers. Physical and symbolic segregation both emphasizes and perpetuates these social constructions of masculinity and femininity as different and unequal. Paid work for men outside the home, and housework and child care for women are symbolic markers for gender (Fenstermaker et al., 1991; Brines, 1994). Therefore, child care facilitates a display of femininity for women, while not performing child care activities facilitate a display of masculinity for men (West and Zimmerman, 1987, Pleck, 1977). Any deviation from the institutionalized norms of male provider role and female caretaker role invites the risk of negative social judgments; men and women are held socially accountable for displaying their gender appropriately (Brines, 1994). Further, the concept of hegemonic masculinity predicts a harsher judgment for men than women when they display a gender which does not correspond with the culturally-resonant stereotypes. Because masculinity occupies a more privileged position in relation to femininity, men are held more accountable for displaying the appropriate gender, and a man who violates the cultural expectations of masculinity during a display of gender may be sanctioned more harshly than a woman who violates the expectations of femininity (Connel, 1987). Hence, the resistance of men to child-rearing activities.

Identity Theory

Identity theory posits that a person's behavior is a function of his conception of identity which derives from the positions he occupies in society (Kuhn, 1960). As applied in fatherhood research, the theory proposes that the key element in father involvement is the extent to which a father identifies with the status and roles associated with being a parent. In much of the research we have reviewed father's parenting role identity is defined as the meanings attached to the status and associated roles of parenthood (usually self-described, but meanings ascribed by mothers or children have also been used). Further, the theory posits that these self-perceptions are organized in a hierarchial fashion such that, at any given point in time, some father roles are more important than others (Ihinger-Tallman, et al. 1993). The two key concepts of the theory, namely "identity saliency" and "commitment," specify how individuals' identity perceptions are formed and shaped. The greater the saliency the more likely are the fathers to engage in specific fathering behaviors and emphasize their fatherhood roles when other demands compete for their attention (e.g., time, energy, resources). "Commitment," as used in the fatherhood research is harder to nail down, because its use is confounded by multiple meanings which are not always clear (Stryker, 1980; Stryker and Serpe, 1982; Burke and Reitzes, 1991). The most promising of these appear to be one that links "commitment" to the number of persons, and the extend to which these persons expect or require him to hold the status of father and enact father roles; and the importance of these relationships to him. Other definitions include: the willingness to give one's energy and resources to a particular course of action (Gecas, 1982), the obligation and promise to stay in and maintain a relationship over time (Tallman, Gray and Leik, 1991); and, a consistent line of behavior resulting from one's evaluation of the balance of benefits over costs (Becker, 1981).

Social Learning Theory

Social learning theory emphasizes the way individuals develop gender-appropriate behaviors through the observation and imitation of models. Although there is very little research on how men learn to be fathers, there is a long research tradition that looks at the implications of differential reinforcement of boys' and girls' behavior. However, it appears from the research findings that children do not appear to imitate people of their own gender any more than the opposite gender, nor do they typically end up resembling the same-sex parent more than the other. It seems, therefore, that men are unlikely to construct their fatherhood identity on the basis of male role models, only.

Generativity

A more recent addition to the arena is the adult developmental perspective, a process which Erikson (1982a, 1982b) labeled as "generativity" -- caring for and contributing to the life of the next generation. There are three distinct types of generativity: biological generativity (procreation), parental generativity (parenthood), and societal generativity (productivity and creativity). The applicable equivalents in fatherhood research then would be biological or birth fathers, child-rearing fathers, and cultural fathers or social fathering. Parental generativity is the link between biological and societal generativity and involves carrying out the child-rearing activities that promote children's ability to develop to their full potential (Snarey, 1997). This is also a reciprocal relationship in that generative parents receive opportunities to satisfy their own developmental need to be generative, in return for the support they provide for their children's development.

Scripting Theory

Another late entry is the "scripting theory" developed and used by Gagnon and Simon (1973; and Simon and Gagnon, 1987) in their research on human sexual behavior. Recently, Marsiglio (1995b) discussed its use to conceptualize the relationship between different aspects of fatherhood. He proposes, after Simon and Gagnon, that there are three distinct but interrelated levels of fatherhood activity: cultural and subcultural scripting, interpersonal scripting, and intrapsychic scripting. At the first level, fathering scenarios are provided at the societal level and include the basic normative guidelines for the fatherhood roles (LaRossa, 1988). At the second level, individuals interpret the expectations provided in the cultural scenarios and use these as guidelines to construct and manage specific situations when they interact with others (e.g., partners, children). At the third level, it is posited, fathers privately construct images about how they want to present themselves as fathers.

It is neither feasible nor desirable to confine the conceptualization of fatherhood to a single theory or framework. However, it is appealing to think that a unifying approach can lead to better research designs and help close the gaps in our understanding of many of the issues involved in human parenting in general, and fatherhood in particular. As of this date, there is little evidence of this actually occurring.

The Knowledge We Need: An Overview

It was relatively easy to summarize what we know about the meaning of fatherhood and the change in the father's role over the last several decades or more. The account of what we do not know is primarily a chronicle of the visible gaps in the research literature we reviewed. In thus section we present an overview of some general considerations. In the next section we discuss some of the more specific research questions that require attention.

The recent research on fatherhood issues is clustered around three areas of focus: the symbolic representations, ideologies and cultural images of fatherhood; men's perceptions about their fatherhood identity and roles; and the ways in which resident and nonresident fathers interact with their children, and the extent of their involvement (Marsiglio, 1995a).

There are excellent discussions of symbolic representations, ideologies, and cultural images of fatherhood, but there seems to be no systematic work that separates the *ideal* from the *stereotypical* image of fatherhood, and either from the *actual* representation of fatherhood among the general public, and among relevant subgroups of the population. We also have very little information on how these images are shaped, and how they vary among subgroups of the population. For example, why does the public perception of black fathers tend to be more negative than those of white fathers? What are the public's perceptions and expectations of stepfathers, and why are they different than those for biological fathers? How do these standards of behavior get established, disseminated and processed? To what extent is class, independent of race, related to the fatherhood images and perceptions, and evaluation of fathers' actual behaviors?

Most of our information on men's beliefs about parental roles come from after-the-fact inquiries about their roles and responsibilities as fathers. We know much less about men's perceptions of their parental responsibilities, and the possible effects of fulfilling or not fulfilling these obligations on the spouse, children, and themselves, before they have become a father (either when planning or expecting to become a father). Moreover, significantly fewer studies have compared the attitudes toward and perceptions of parental roles among stepfathers, unwed fathers, and noncustodial fathers. We also know little to nothing about the reciprocal effects of fertility intentions (e.g., unintended vs. planned) on these perceptions, and on the actual participation of fathers in parenting.

Also scarce is information on the effects of a father's own socialization, and the model portrayed by his own parents, as influencing factors on his conception and practice of fatherhood. This problem is confounded by massive intergenerational changes suggesting that societal values, independent of the micro family transitions, may be driving the changes in the meaning of fatherhood. The best that can be said from the scant evidence is that the effects are ambiguous. For example, those who adopt a nontraditional model of fatherhood are equally likely to have had fathers who were relatively unavailable, unloving, and powerless or have modeled themselves after fathers who were also highly participant in their own upbringing (Radin, 1981; Sagi, 1982).

The practical aspects of fatherhood are reflected by individuals' daily experiences. Although numerous studies in the last two decades have focused on various aspects of paternal behavior, relatively little seems to have been done to advance the conceptualization of the diverse social and psychological aspects of fathers' lives (Marsiglio, 1991, 1995a). Subjective aspects of fatherhood appear to be more poorly understood than the more objective behavioral aspects. Also neglected is research on the kind of paternal involvement which Pleck, Lamb and Levine (1986) refer to as the "responsibility" types of activities, including organizing and managing their children's lives (e.g., scheduling medical appointments, buying clothes, etc.).

Research on fatherhood has primarily considered the interaction of resident fathers with their children, and nonresident fathers' level of involvement, on the basis of frequency of contact, closeness, and financial support, and the effects of the level and type of involvement on the well-being of the children. We know more about these behaviors and their effects on children than we do about the factors that determine or account for the variation in the levels and types of fatherhood behavior beyond some associations with limited characteristics of the father, mother, and the child(ren). Also, while these types of analyses reveal aggregate patterns among children categorized in one way or another (e.g., biological father present, involved nonresident father, resident nonbiological father, etc.), they do little to clarify the social psychological mechanisms by which children differentially respond to diverse circumstances. In other words, we have little understanding of the process which translates father attitudes or behaviors into child outcomes, which fatherhood behaviors have the most positive "payoff," or what these most positive payoffs actually are.

As researchers and policy makers continue to concentrate on the effects family changes have on children, relatively less is known, and insufficient consideration has been given to possible consequences for mothers, and even less to consequences for fathers. Yet it seems, these changes in the family, and therefore changes in the role of fatherhood, are likely to have both direct effects on mothers and fathers, and also indirect effects on the children as a consequence of the effects on the parents. Also, if the emergent model of fatherhood is indeed androgynous, blending the traditionally masculine parenting activities with those which were traditionally feminine, then research needs to focus more on the effects of increased paternal participation on the father, and on the costs and benefits of increased participation for fathers (e.g., relationship with their children and wives, own personal development, commitment to their jobs and careers, etc). Further, we seem to have a relatively better understanding of the effect of paternal nonparticipation on children, but not what the costs and benefits may be for fathers who do not participate. In part, fathers are absent, or not participating, because, obviously, in some situations, there may be certain returns—economic and social psychological--to not participating in parenting. It might neither be politically correct, nor socially productive to document the benefits that may accrue from such nonparticipation to absent fathers and even to resident fathers who are not involved to any significant degree. But, it *is* productive to clarify *why* fathers may find noninvolvement to be positive. We need to reduce the ambiguity about the relevant effects for dads, moms, and kids, and accept the fact that not all effects have to be positive, and that there are tradeoffs.

Fatherhood research should take into account the diverging perspectives men and women hold on relationship, marriage, family life and so on, and how these divergent perspectives may define the symbolic meaning and presentation of paternal activities. That is, to the extent men and women develop separate gender-specific perspectives on parenthood, they would discount and distort each other's values, ideologies, and models regarding parenthood, not to mention the actual parenting behaviors each may have adopted (Marsiglio, 1995a).

Finally, it is important to consider paternal involvement and fathers' commitment to various identities as being both socially patterned and individualistic at the same time (Furstenberg, as cited in Marsiglio, 1995a). The opportunities and constraints fathers face in their fatherhood roles are often shaped by large-scale social processes. Therefore, patterns of paternal parenting behavior should be examined within the larger social context that is in part responsible for the specific role they end up playing. Particularly important are the gender and class dimensions in this sorting process (Marsiglio, 1995a). Some of the gaps in our understanding of the meaning of parenthood for men are described below more specifically, in the form of research questions.

Implications for Research

On the basis of a limited review of the existing research literature we have identified a number of research questions that need to be answered to better understand the meaning of fatherhood, its effects on the father's behavior, and the short- and long-term consequences for men, women, and children in a variety of family forms. Such family forms include not only the traditional intact families, but reconstructed families and nonmarital unions. Within the various family forms, research should further consider the roles and effects of non-biological parents, custodial and non-custodial, as well as resident and nonresident parents. The list of research questions we offer below is by no means exhaustive; it is only restricted by our limited synthesis of the many pieces of the puzzle. Further, the order in which they are presented does not necessarily imply an order of salience, priority, or urgency.

Life Cycle Stage Considerations

What is the effect of life cycle stage at marriage or at the birth of the first child on how men (and women) view and practice parenthood? It appears that men and women view parenthood differently at different life cycle stages. Consequently we would expect parenting behaviors to vary accordingly. In the little research available, the results are often contradictory. In younger marriages, the women's ideology appears to be more relevant, while in older marriages the man's ideology may take precedence. Yet other research shows that older male partners tend to have more liberal views regarding women's roles. All of this contradicts the notion that older men are more likely to be immersed in careers and therefore might be less involved in fathering. Clearly, life cycle stage issues need to be disentangled from employment and social class considerations.

What is the effect of the child's life cycle stage on the extent of father involvement? It has been noted by many that there is very little useful information about the extent to which a father *can* and *should* be involved in the child nurturance process during the early years of life. Research suggests that, historically, the infant - early childhood phase was essentially viewed as totally the mother's domain. More recently, with the emergence of "nurturant father" models, and with fathers being increasingly involved in their children's life at all stages, there is greater ambiguity on this issue. This has further implications for having legitimized paternal involvement with absent children when marriages (or the relationships) dissolve (as often they do) while the children are still quite young.

How does entry into parenting alter individual ideas about parenting? A research sub-theme, which is neglected in the literature, relates to the question of the extent to which the "meaning" of parenthood is sensitive to the parent status of individuals. In the limited literature on this issue, much of the research has essentially compared cross-sections of parents and non-parents. What is needed is more research which follows individuals from non-parenthood into parenthood and later. The question of the extent to which notions about the meaning of parenthood are altered abruptly with entry into that status is inherently important because it can tell us a lot about attitude incongruence within the society -- between non-parents, parents with children, and those of us who have to some extent "forgotten" some of its joys(?). This understanding becomes of even greater importance during periods of rapid social change, where the resollections which one generation may have do not mesh closely with the actual experiences of their children's generation.

Gender, Racial/Ethnic, and Age-Linked Issues

To what extent are gender differences in parenting attitudes, beliefs, and behaviors socially appropriate? While fathers, on average, appear to be more involved with their children at all ages, this does not imply equal sharing in all child-related activities. To the extent that we operationally define the "meaning of fatherhood" in terms of actual father involvement, fathers (both present and absent) and mothers are not equal parents. The question, then is, how large is the discrepancy between what fathers and mothers in American society feel they should both do, and actually do? Furthermore, there appears to be a view that these possibly immutable gender differences should not be extinguished. Therefore, is it advisable for government programs or policies to encourage a completely egalitarian or identical notion of parenthood?

Can we usefully explain racial, ethnic, and class differences in the meaning of fatherhood? There appears to be a great amount of heterogeneity in the meaning of fatherhood that is not fully understood. Such differences appear to exist between as well as within racial, ethnic, and socioeconomic groups. Black-white-Hispanic distinctions reflect differing cultures, histories, and socioeconomic statuses. There is also considerable variation, for example, between generations of immigrants, between different Hispanics of different origins (e.g., Mexican vs. Puerto Rican vs. Cuban vs. other Central and South American), and between upwardly mobile blacks compared to second or third generation middle-class blacks.

Generally, public perceptions of black fathers tend to be more negative than those of whites fathers. It seems that black fathers are mostly perceived as inner-city, hyper-masculine, irresponsible men who do not get involved in their children's lives. Such perceptions are even more negative for black men who have fathered children out-of-wedlock. And there are many of them.

There is some evidence that the traditional notions about discrete family transitions do not reflect the experiences of black fathers and their children and that traditional definitions of residential status may underestimate the role of black fathers (biological or otherwise) in the lives of their children (Mott, 1990). Put differently, the prevailing definitions and conceptualizations of fatherhood may not adequately capture the cultural nuances in the presentation of fatherhood roles.

A number of explanations have been offered to account for the distinctive features of family formation and parenthood among black men, ranging from the experience of slavery and exploitation, traditional practices root in Africa, to racial discrimination, segregation, and persistent poverty. Undoubtedly, black men feel the rising expectations for fathers in our society and carry the burden of their personal histories and the weight of their culture as they become fathers. But we do not know how exactly these expectations impact the process of establishing and maintaining the many roles of fatherhood.

Are adolescent parenting issues unique? Adolescent fathers deserve special attention largely because, at a crucial time of identity formation, they are much less prepared or qualified for a paternal role. While this is true for adolescent mothers as well, fathers may have an especially difficult time. Consequently, many adolescent males seem rather ambivalent about fatherhood. Teti and Lamb (1986) suggest that this ambivalence is in part due to the sex-role learning that predispose adolescent males to avoid situations that require stereotypically feminine behaviors, like child care. Such tendencies to avoid feminine behavior and to embrace the masculine role may become exaggerated during adolescence as a result of identity struggles and peer pressure (Teti and Lamb, 1986). The ambivalence toward fatherhood among adolescent males may also be influenced by the drive to establish autonomy, which is typical of the teen years. At a time when partially breaking away from parents and achieving a sense of independence are developmental milestones, the restrictive demands of the paternal roles constitute a serious threat to this autonomy. Also, the ability to provide for the family is still one of the most important indices of masculinity in our society. Therefore, the limited ability of adolescents to provide adequately for their partner and the baby may be another cause of the response to fatherhood among adolescent males.

Although, teenage pregnancy and childbearing has been popular area of research for nearly three decades, our knowledge of adolescent parenting, particularly adolescent fatherhood, is surprisingly limited. The research that has been conducted on teen fatherhood is, not all too infrequently, confounded by methodological inadequacies, theoretical research designs, measurement instruments of unknown validity and/or reliability, and findings that can neither be replicated nor generalized. Few generalizations are possible regarding appropriate interventions which may be most suitable for the shorter and longer-term well-being of both parents and children.

The Effect Of Changes In Marriage Age and Parenthood Probabilities

How does the changing age at childbearing affect the meaning of parenthood? For a wide range of reasons, many of which have been detailed in demographic literature, women and men are beginning childbearing at later ages than those in the immediately preceding generations. To what extent, do these changes in childbearing directly reflect changes in how men (and women) view parenthood? Conversely, to what extent may changes in how individuals view parenthood reflect changes in the childbearing patterns? Further, to what extent does the narrowing age gap between fatherhood and motherhood reflect an increasing similarity in the reasons for and the meaning of parenting for men and women?

How have any possible increases in childlessness among contemporary adult cohorts altered the meaning of parenthood? There is evidence of a recent decline in the proportion of adults (men and women) who will ever become parents. Has this presumed selection process altered in any important way the characteristics of those who do become parents? Put differently, are the parenting attitudes of otherwise comparable parents and non-parents perhaps more different from each other than was true a few years ago? What are the implications of this for the well-being of children? Are we now "selecting out" a better or worse quality person into the parenting subset?

The Effect Of Parents On Children

How does congruence between parental role expectations and role behavior affect child well-being? From the onset, we have speculated that the "meaning of fatherhood" is probably closely linked with the roles that fathers are willing to play in the parenting sphere, both inside and outside of relationships. Harmony between living-together and living-apart parents is at least partly contingent on the congruence that each feel exists between their role expectations and their role behavior. And this harmony has major implications for the well-being of their children. This is one way of saying that the satisfactory cognitive and emotional development of children both in traditional and disrupted families is probably closely linked with the extent to which the two parents have similar views about the role expectation for each present or absent parent. This does not mean that they should both expect to be doing the same thing, just that they should have agreement about what each parent should be doing. This suggests some testable propositions using available data sets. For example, in triads (mother-father-child) where there is relative congruence between what a mother would prefer the father do and what the father does are likely to have less acrimony and the children are probably less likely to have behavior problems (whether or not the parents are living together).

At the level of individual and family behavior, there are now available several large national data sets which permit one to try to tease out for population subgroups which specific paternal roles/behaviors may be more likely to translate into preferable child cognitive and emotional outcomes. These paternal-child interaction patterns, which can be used as proxies for more general notions of the "meaning" of fatherhood, can be incorporated into multivariate statistical models and perhaps suggest preferable and less preferable paternal behaviors for a variety of family forms. This leads into the next two points:

What does the formal structure of parental relationships imply for the parents' commitment and child well-being? The distinction between the meanings of marriage and cohabitation is not only central to the discussion of relationship dissolution, but is central to interpreting child development issues. Within the context of this discussion, the key question is: Does the "meaning" of parenthood differ in important ways between married and unmarried couples? That is, is there a difference in the level of commitment to the partner and child while the relationship is ongoing and in the level of commitment to the child when the relationship falters. Because of the high probability of marriage dissolution and, in particular, dissolution of cohabiting unions, we need to have a better understanding of the differences between these relationship forms in terms of what the participants view as their parental commitments and obligations.

What do parental relationship transitions imply for the socioemotional and intellectual development of children? There is a large and growing body of literature which examines the consequences of relationship transitions for the development of children. Depending on a host of circumstances, results have tended to be ambiguous. In part, this ambiguity reflects to a considerable extent the extraordinary variety of situations these children find themselves in. Much of this variability is intimately linked with the "meaning of parenthood" notions. The expectations of and the meaning of fatherhood to the biological parents both before and after the transition are in all likelihood important explanatory inputs. Typically, available research finds little statistical interpretive value in visitation patterns as predictors of better or poorer child outcomes. It is worth speculating that if research could differentiate parental role expectations (as anticipated by both parents) interactively with visitation patterns, the results might be more successful in finding the posited associations. Similarly, the presence/arrival of step-parents are non-neutral events. These are often found to have negative consequences, contingent on a number of characteristics, such as the child's gender or the parent's race. More research is needed on the role expectations of step-parents, and the meaning of step-fatherhood or more generally step-parenthood. In the broadest context, this draws somewhat on Cherlin's (1978) notion of there not being a useful normative structure which allows individuals coming into non-traditional family forms to have a firm grasp of what their role should most appropriately be.

What are the implications of linkages between custody status, child support payments and the meaning of fatherhood for the development of children? While the probability of making payments is heavily linked with economic viability, possibly it is also contingent on what the man views as the fatherhood role. First, his willingness to contribute may be related to whether or not he feels he had been allowed to play the father role which he had felt to be appropriate (e.g., how much contact or "recreational contact" has he had or been allowed to have with his children). Additionally, and more directly, child support is likely to be linked with what he feels is the universal role of fatherhood, regardless of whether he is in residence with the child. Yet another question is, whether in joint custody situations, it is logistically and psychologically possible for both parents to maintain relationships with the child which are consistent with what they view as their parental roles. It appears that this may not even be feasible for the noncustodial parent, when only one parent has custody. In this case, the question is how this affects the likelihood of maintaining child support payments?

Historical Perspectives

How has the meaning of fatherhood changed over time? We provided a brief descriptive account of fatherhood in the 19th and early 20th Centuries. However, there is a dearth of information on the social-structural and ideological circumstances surrounding the fatherhood models of the past. We know little about how those circumstances sustained the prevailing fatherhood roles of the time. We also know very little about the "components" of the historical fatherhood model, including the subjective meaning, objective indicators, and how they are different from those currently observed. Documenting the elements of fathering in the past, and the social-structural context within which the predominant fatherhood model flourished may help better understand the ensuing changes in the social-structural context that eventually may have led to changing patterns of family formation and parenting. In other words, to be able to project the future of fatherhood, we need to understand the past and present patterns of family life, and the linkages between different styles of fatherhood and the various social, economic, and demographic conditions. This is particularly important within the context of race, ethnicity, and class differences in parenting, the antecedents of such differences, and the diverse consequences on all parties involved.

Data and Measurement Issues

Much of the research on fatherhood is based on data from nonrepresentative small cross-sectional samples, often of women. Major exceptions to this are the National Survey of Families and Households (NSFH), the National Longitudinal Survey Youth (NLSY), and the rather outdated National Survey of Children (NSC). There is an urgent need for new data collection efforts that focus specifically and systematically on fatherhood issues with extensive reports from fathers, mothers, and children. Preferably, such data collection efforts should be based on probability samples and a longitudinal design. It is also important that future surveys should attempt to properly cover, and when possible over-sample, certain ethnic groups as well as nonwhite and non-middle class low income families. It is essential that such surveys include the collection of attitudinal information on a continuous basis, given the sensitivity of attitudes to life cycle events.

Small nonprobability samples or convenience samples are also important. Even though such samples do not allow generalization to the population at large, they are extremely useful for hypothesis testing, measurement development, and exploratory work. Hence, such efforts should also be continued and encouraged. Particularly important are qualitative ethnographic studies that would enhance our understanding of the diverse meanings of fatherhood among ethnic and cultural subgroups, and allow us to formulate sound conceptualization and more accurate measurement of the many dimensions of fatherhood.

A basic methodological issue is the widespread reliance of fatherhood research on data collected from the mothers, on mothers' reporting of fathers' attitudes and behavior, and mother's reports of the quality of the relationship fathers have with their children. One would correctly assume that the validity of the reporting would be highly dependent on whether or not the father is resident, on the quality of the relationship between the mother and the father, and whether the fathering behavior of the men is congruent with the mother's ideology and expectations. The validity of such reports is also highly reliant on whether the mothers are reporting subjective or objective phenomena. And even the so called "objective" data may be colored by rationalization after the fact or indeed by transparent dishonesty. In this regard, when data are directly obtained from the fathers, as was done in the NSFH, the quality of the data can also be affected by the tendency to provide socially desirable responses, especially by nonresident and noninvolved fathers. Furthermore, a different type of measurement issue arises (Smith and Morgan, 1994) when discrepant reports of subjective phenomena (e.g., father-child relationship quality) are provided by different respondents (i.e., by father, mother, child, or another household member).

In general, fathers are less likely to participate in surveys than mothers, and nonresident fathers are less likely to participate than resident fathers. Therefore, self-selection bias can also affect the representativeness of specific subsamples of fathers, such as nonresident fathers in particular. The data and measurement issues we have mentioned here are not by any means limited to fatherhood research, but are indeed pervasive in social sciences.

Conclusion

A lot has been written about various dimensions of fatherhood, and there is still a lot more to be learned. As social, economic, and political conditions shift, the dynamics of family formation and parenthood also change, and the complex issues involved in these processes re-emerge to the forefront of many agendas. Consequently, the topic needs to be and is revisited, periodically. If the current focus, as evidenced by the extensive public debate and social inquiry it has generated, is any indication, then fatherhood is once again a "burning" issue in the United States.

Above, we tried to summarize, succinctly, what is known and what needs to be learned, on the basis of an extensive research literature. We also attempted to delineate some broad research areas, as well as some very specific research questions. As the debate on the past, present and the future of fatherhood continues, social scientists will continue to play a vital role in the this debate, for the foreseeable future. While their contributions to this debate may be varied, the sum of their work will continue to provide the foundation for a scholarly discourse and for a learned social policy.

References

Baydar, N. and J. Brooks-Gun. 1991. "Effects of Maternal Employment and Child-Care Arrangements on Preschoolers' Cognitive and Behavioral Outcomes: Evidence from the Children of the National Longitudinal Survey of Youth." *Developmental Psychology* 27(6): 932-945.

Becker, G. 1981. *A Treatise on the Family.* Cambridge: Harvard University Press.

Benson, L. 1968. *Fatherhood: A Sociological Perspective.* New York: Random House.

Bernard, J. 1981. "The Good Provider Role: Its Rise and Fall." *American Psychologist* 36(1): 1-12.

Bernard. J. 1983. "The Good Provider Role: Its Rise and Fall." pp.125-144 in *Family in Transition* edited by A. Skolnick and J. Skolnick. Boston: Little, Brown.

Brines, J. 1994. "Economic Dependency, Gender, and the Division of Labor at Home." *American Journal of Sociology* 100(3): 652-688.

Burke, P.J., and D. Reitzes. 1991. "An Identity Theory Approach to Commitment." *Social Psychology Quarterly* 54: 239-251.

Cherlin, A.J. 1981. *Marriage, Divorce, Remarriage.* Cambridge: Harvard University Press.

Connell, R.W. 1987. *Gender and Power.* Stanford: Stanford University Press.

Crimmins, E.M., R. Easterlin, and Y. Saito. 1991. "Preference Changes Among American Youth: Family, Work, and Goods Aspirations, 1976-86." *Population and Development Review* 17(1): 115-133.

Demos, J. 1986. *Past, Present, and Personal: The Family and The Life Course in American History.* New York: Oxford University Press.

Eggebeen, D., and P. Uhlenberg. 1985. "Changes in the Organization of Men's Lives: 1960-1980." *Family Relations.* 34(2):251-257.

Ehrenreich, B.1983. *The Hearts of Men: American Dreams and the Flight from Commitment.* New York: Anchor Press.

Erikson, E. 1982a. *Identity and the Life Cycle.* New York: Norton.

Erikson, E. 1982b. *The Life Cycle Completed: A Review.* New York: Norton.

Fenstermaker, S., C. West, and D. Zimmerman. 1991. "Gender and Inequality: New Conceptual Terrain." pp. 289-307 in *Gender, Family, and Economy: The Triple Overlap* edited by R.L. Blumberg. Newbury Park: Sage.

Filene, P. G. 1986. *Him/Her/Self: Sex Roles in Modern America.* Baltimore: The Johns Hopkins Press.

Franklin, C.W. 1988. *Men and Society.* Chicago: Nelson-Hall Inc., Publishers.

Furstenberg, F.F. Jr., 1988. "Good Dads - Bad Dads: Two Faces of Fatherhood." pp. 193-218 in *The Changing American Family and Public Policy*, edited by A.J. Cherlin. Washington, D.C.: The Urban Institute Press.

Furstenberg, F.F. Jr., C.W. Nord, J.L. Peterson, and N. Zill. 1983. "The Life Course of Children of Divorce: Marital Disruption and Parental Contact." *American Sociological Review*. 48(10): 656-668.

Gagnon, J.H. and W. Simon. 1973. *Sexual Conduct: The Social Sources of Human Sexuality*. Chicago: Aldine Publishing Company.

Gecas, V. 1982. "The Self-Concept." *Annual Review of Sociology* 8: 1-32.

Gunsberg, L. 1982. "Selected Critical Review of Psychological Investigations of the Early Father-Infant Relationship." pp. 65-82 in *Father and Child: Developmental and Clinical Perspectives* edited by S.H. Cath, A.R. Gurwitt, and J.M. Ross. Boston: Little, Brown and Company.

Ihinger-Tallman, M., K. Pasley, and C. Buehler. 1993. "Developing a Middle-Range Theory of Father Involvement Postdivorce." *Journal of Family Issues* 14(4): 550-571.

Juster, T.F., and F.B. Stafford. 1985. *Time, Goods, and Well Being*. Ann Arbor: Institute for Survey Research.

Kuhn, M.H. 1960. "Self Attitudes by Age, Sex, and Professional Training." *Sociological Quarterly* 1(1): 39-55.

Lamb, M.E., J.H. Pleck, E.L. Charnov, and J.A. Levine. 1987. "A Biosocial Perspective on Paternal Behavior and Involvement." pp. 111-142 in *Parenting Across the Lifespan: Biosocial Dimensions* edited by J.B. Lancaster, J. Altmann, A.S. Rossi, and L.R. Sherrod. New York: Aldine de Gruyter.

Lamb, M.E. 1986. "The Changing Role of Fathers." pp. 3-27 in *The Father's Role: Applied Perspectives*, edited by M.E. Lamb. Hillsdale, NJ: Lawrence Earlbaum.

Lamb, M.E. 1987. "Introduction: The Emergent American Father." pp. 3-25 in *The Father's Role: Cross-Cultural Perspectives* edited by M.E. Lamb. Hillsdale, NJ: Lawrence Earlbaum.

Lamb, M.E. 1976. *The Role of the Father in Child Development*. New York: Wiley.

Lamb, M.E. 1977. "The Development of Mother-Infant and Father-Infant Attachment in the Second Year of Life." *Developmental Psychology* 13: 637-648.

LaRossa, R. 1988. "Fatherhood and Social Change." *Family Relations* 37: 451-458.

Lasch, C. 1977. *Haven in a Heartless World: The Family Besieged*. New York: Basic Books.

Lye, D.N. 1991. "Where's Daddy? Paternal Participation in Child Rearing in Intact Families." Paper presented at the annual meeting of the Population Association of America, Washington, D.C. March 21-23.

Malinowski, B. 1913. *The Family Among the Australian Aborigines*. London: University of London Press.

Marsiglio, W. 1991. "Paternal Engagement in Activities with Minor Children." *Journal of Marriage and the Family*. 53(4): 973-986.

Marsiglio, W. 1995a. "Fatherhood Scholarship: An Overview and Agenda for the Future." pp. 1-20 in *Fatherhood: Contemporary Theory, Research and Social Policy* edited by W. Marsiglio. Thousand Oaks: Sage.

Marsiglio, W. 1995b. "Fathers' Diverse Life Course Patterns and Roles: Theory and Social Interventions." pp. 78-101 in *Fatherhood: Contemporary Theory, Research and Social Policy* edited by W. Marsiglio. Thousand Oaks: Sage.

Mott, F.L. 1990. "When is a Father Really Gone? Paternal-Child Conduct in Father-Absent Homes." Demography 27(4):499-517.

Mott, F.L. 1993. *Absent Fathers and Child Development: Emotional and Cognitive Effects at Ages Five to Nine*. Report prepared for the National Institute of Child Health and Human Development. Columbus: Ohio State University, Center for Human Resource Research.

Murdock, G.P. 1949. *Social Structure*. New York: MacMillan.

O'Connell, M. and C. Rogers. 1984. "Out-of-Wedlock Births, Premarital Pregnancies, and Their Effect on Family Formation and Dissolution." *Family Planning Perspectives* 16(4): 157-162.

Parsons, T. 1955. "The American Family: Its Relation to Personality and to the Social Structure." pp. 3-13 in *Family, Socialization, and Interaction Process* edited by T. Parsons and R.F. Bales. New York: Free Press.

Pleck, J.H., M.E. Lamb and J.A. Levine. 1986. "Epilog: Facilitating Future Change in Men's Family Roles." *Marriage and Family Review* 9(3-4): 11-16.

Pleck, J.H. 1977. "The Work-Family Role System." *Social Problems* 24: 417-427.

Pleck, J. 1985. *Working Wives Working Husbands*. Beverly Hills: Sage Publications.

Pleck, J.H. 1987. "American Fathering in Historical Perspective." pp. 83-97 in *Changing Men: New Directions in Research on Men and Masculinity* edited by M.S. Kimmel. Newbury Park: Sage.

Radin, N. 1981. "The Role of the Father in Cognitive, Academic, and Intellectual Development." In *The Role of the Father in Child Development* (rev. ed.) edited by M.E. Lamb. New York: Wiley.

Radin, N. 1982. "Primary Caregiving and Role-Sharing Fathers." pp. 173-204 in *Nontraditional Families: Parenting and Child Development* edited by M.E. Lamb. Hillsdale: Lawrence Earlbaum.

Rotundo, E.A. 1985. "American Fatherhood: A Historical Perspective." *American Behavioral Scientist* 29(1): 7-25.

Sagi, A. 1982. "Antecedents and Consequences of Various Degrees of Paternal Involvement in Child-Rearing: The Israeli Project." In *Nontraditional Families: Parenting and Child Development* edited by M.E. Lamb. Hillsdale: Lawrence Earlbaum.

Seltzer, J.A., and Y. Brandreth. 1994. "What Fathers Say About Involvement with Their Children After Separation." *Journal of Marriage and the Family* 50: 663-677.

Seltzer, J. A., N. Cate Schaeffer, and H. Charng. 1989. "The Relationship between Visiting and Paying Child Support After Divorce." *Journal of Marriage and the Family* 51(4):1013-1031.

Shorter, E. 1975. *The Making of the Modern Family*. New York: Basic Books.

Simon, W., and J.H. Gagnon. 1987. "A Sexual Scripts Approach." pp. 363-383 in *Theories of Human Sexuality* edited by J. Ger and W. O'Donohue. New York: Plenum Press.

Smith, H.L., and S.P. Morgan. 1994. Children's Closeness to Father as Reported by Mothers, Sons, and Daughters: Evaluating Subjective Assessments with the Rasch Model." *Journal of Family Issues*15(1): 3-29.

Snarey, J. 1997. "Foreward: The Next Generation of Work on Fathering." pp ix-xii in *Generative Fathering: Beyond Deficit Perspectives* edited by A.J. Hawkins and D.C. Dollahite. Thousand Oaks: Sage.

Stein, P.J. 1984. "Men in Families." *Marriage and Family Review* 7(3): 143-162.

Stone, L. 1979. *The Family, Sex and Marriage in England 1500-1800*. New York: Harper and Row.

Stryker, S., and R.T. Serpe. 1982. "Commitment, Identity Salience, and Role Behavior." Pp.199-218 in *Personality, Roles and Social Behavior* edited by I.W. Ickes and E. Knowles. New York: Springer-Verlag.

Stryker, S. 1980. *Symbolic Interactionism: A Social Structural Version*. Menlo Park: Benjamin/Cummings.

Tallman, I., L. Gray, and R. Leik. 1991. "Decisions, Dependency and Commitment: An Exchange Based Theory of Group Development." *Advances in Group Processes* 41: 154-162.

Teti, D.M. and M.E. Lamb. 1986. "Sex Role Learning and Adolescent Fatherhood." pp. 19-30 in *Adolescent Fatherhood* edited by A.B. Elster and M.E. Lamb. Hillsdale: Lawrence Earlbaum.

Thornton, A. and D. Freedman, 1983. "The Changing American Family." *Population Bulletin* 38(4): 2-44.

Veroff, J., E. Douvan, and R.A. Kulka. 1981. *The Inner American: A Self-Portrait from 1957 to 1976.* New York: Basic Books.

Weitzman, L. 1985. *The Divorce Revolution: The Unexpected Social and Economic Consequences for Women and Children in America.* New York: Free Press.

West, C. and D. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1: 125-151.

APPENDIX D

FERTILITY MOTIVATION, DECISION MAKING, AND INTENTION TO ENGAGE IN SEX, CONTRACEPTION, PREGNANCY, ABORTION AND BIRTH

Freya Sonenstein
The Urban Institute

Howard Goldberg
Center for Disease Control

Gontran Lamberty
Maternal and Child Health Bureau

Susan Newcomer
National Institute of Child Health
and Human Development

Warren Miller
Transnational Family Research Institute

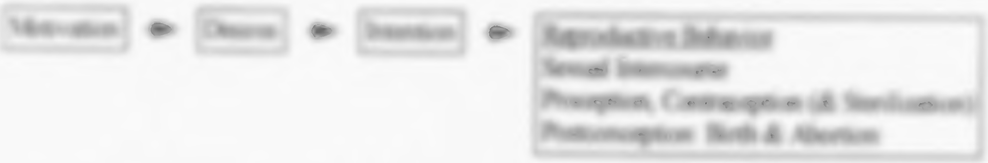
[This paper is under revision]

Fertility motivation, decision making, and intention to engage in sex, contraception, pregnancy, abortion and birth

Introduction

This review briefly covers the status of knowledge about males' motivation regarding reproductive behaviors. To provide an overall structure for our discussion we use a theoretical framework developed by Warren Miller to describe the psychological sequence that culminates in the reproductive behaviors under discussion--sexual intercourse, contraception, pregnancy, abortion and birth. Miller has used this framework to trace the sequence of how childbearing motivations lead to child timing desires, fertility intentions, proceptive and contraceptive behavior, and post-conception behavior. We think it provides a useful starting point for organizing our discussion of male fertility behavior because it identifies the central concepts that we must consider. We note, however, that another working group is looking at theoretical models in a more explicit way.

In the framework, the first key step in the sequence leading to behavior is the formation of *motivations*, defined as traits that dispose an individual to react in specific ways under certain conditions. Motivations, in turn, are activated as *desires*--what an individual wishes for or wants. Desires are then transformed into *intentions* to act. Intentions must take into account what other individuals desire and what can actually be achieved. Intentions effectively represent decisions made about courses of action. Intentions are subsequently transformed into *behavior* when an individual encounters a social situation that provides opportunities to fulfill them. The figure below provides a schematic picture of the model.


Motivation
Desires
Intention
Reproductive Behavior
Sexual Intercourse
Proception, Contraception (& Sterilization)
Postconception: Birth & Abortion

The sequence shown in the figure helps us to understand reproductive behaviors and their outcomes. Broadly, there are three types of reproductive behaviors which will be the focus of our examination. First engaging in sexual behavior is a necessary precursor to fertility outcomes. Second there are conceptive behaviors which either contravene or promote conception. These behaviors include the use of contraception and actions to limit fertility permanently. They also include behaviors which are intended to result in conception and birth, which we call proception. Third, there are behaviors that occur after conception. A primary step at this time, if the pregnancy was not intended, is participation in the decision to carry to term or to terminate the pregnancy.

In this report we focus particularly on the psychological antecedents to these three broad categories of reproductive behavior. The figure demonstrates the scope of our task. It also demonstrates the importance of gaining better scientific understanding of motivation and the links between motivation, intention and actual behavior.

A nice feature of this model is that it acknowledges that the behaviors under study occur between two people. While motivation and desires describe the psychological states of single individuals, the formation of intention to act by an individual must take account of the motivation and desire of the other person in the dyad. Thus a full picture of fertility behavior requires that we understand the motivation and desires of both males and females: how these come into play in male-female interactions and how the transactions and related behavioral outcomes are modified by the contexts in which they occur. Indeed our working group believes that:

- *an understanding of the fertility behavior of males cannot be achieved if males are considered in isolation from their female partners.*

Therefore we look forward to the recommendations of the subgroup that is working on couple dynamics.

While the framework we have adopted is useful for characterizing and simplifying the psychological antecedents of reproductive behavior, it does not address the precursors of motivation. Motivations are a product of complex interactions between biological forces, ideology and cultural imagery about gender roles, and normative expectation fostered by family, neighbors, peers and other influential people. Indeed the causes of behavior are intricate and extremely difficult to unravel. We acknowledge that the framework is a useful point of departure, but that powerful drivers of behavior such as biology, social structure, proximal and distal context, and random events --alone and in combination-- may be important in exerting influence on male reproductive behavior at specific junctures:

- *an understanding of the fertility behavior of males cannot be achieved if the contexts in which male-female motivations and intentions play out are not considered.*

The structure of this brief review is to cover what is known about the stated attitudes and motives of U.S. males regarding the reproductive behaviors that we have described above. In addition the review will discuss what is now known about the formation of motivation regarding reproductive behaviors and about the links between motivation and these behaviors. Very little research has examined motivation or predispositions towards the reproductive behaviors we are examining: sex, proception, contraception, and post-conception behavior. Little is known descriptively about the kinds of predispositions that U.S. males have towards reproductive behavior, the development of motivation in individuals, or the link between motivation and behavior. Throughout we propose recommendations for further work.

Motivation to Engage in Reproductive Behaviors among U.S. Males

In the last decade there have been several scientific sample surveys[4] that have collected some information about the motivation of males to engage in reproductive behavior. Least studied are motivations to engage in sexual intercourse. Most studied is motivation to contracept, especially to use condoms, primarily as a result of public health concern about the AIDS epidemic. Very little work has been conducted about men's motivation regarding sterilization. There is some information about men's attitudes towards abortion. Surprisingly little is available about males' motivation towards childbearing and childrearing.

Men's motivation to engage in sex. As noted above there has been little research describing the levels and character of men (or women's) motivation to engage in sexual acts. The only recent scientifically representative study of the heterosexual behavior of adult men and women was conducted by Laumann, Gagnon, Michael and Michaels (1994). This survey includes a few items about the level of appeal of a range of sexual practices and a measure of how often the respondent thinks about sex. It also contains measures of sexual satisfaction. The survey results document that males consistently rate sexual practices more appealing than females suggesting that there are gender differences in the level of motivation to engage in sex. Given the level of stereotyping that occurs about males' "readiness to have sex,"[5] it would be illuminating to know more about actual levels of motivation and how they vary in the population. Therefore we recommend:

- ***Research about male (and female) reproductive behavior needs to include a focus on motivation to engage in sexual activity.***

Moreover, we note that the instrumentation to measure these motivations may not be developed yet, therefore we also recommend that:

- ***Work to develop and test measures of motivation regarding sexual activity needs to occur.***

We note that these recommendations may be politically problematic because there is no widespread public support for the scientific study of sexual behavior. However without this work there will clearly be a missing link in our understanding of male and female reproductive behavior.

---

[4] The National Health and Social Life Survey (Laumann, Gagnon, Michael and Michaels (1994), The National Survey of Men (Tanfer, Billy and Grady, 1993), The National Survey of Adolescent Males (Sonenstein, Pleck and Ku 1989) and The AIDS Surveys (Catania et al. 1992).

[5] This is an item that Pleck (1993) included in his traditional male role ideology scale.

- *Further analyses of the existing data from the National Health and Social Life Survey and any other similar data sets should be conducted and disseminated to further the understanding of the scientific community and the public about the potential importance of these factors in understanding reproductive behavior.*

We also note that it is also important to examine psychological precursors of the corollary behavior, abstaining from sex. Although there has been a quite a lot of research about factors that predispose teens to delay the onset of sexual activity, the underlying motives for this behavior have not been fully examined. Potential motives include fear of disease, worry about impregnation, religious and moral consideration, and possibly desire to conform to family and peer expectations.

- *Further research is needed about motivation not to engage in sex.*

Men's motivations to contracept. The AIDS epidemic has been the impetus for a substantial amount of work about men's attitudes towards condoms and their motivation to use them. Relatively few sexually active males are unaware that condoms are at least somewhat effective at preventing the transmission of HIV and other sexually transmitted diseases. This has been a critical factor in the recent increases in condom use that have been noted both in the U.S. and abroad. There has been little research that has investigated the extent to which condoms have been used to protect the male from infection as opposed to protecting the female from infection. It is generally assumed that when condoms are used for disease prevention, they are most often used by the male to protect himself.

There has been a substantial amount of work about attitudes that lead to increases and decreases in the use of condoms especially among teen males. Factors that are associated with less condom use include embarrassment about purchasing or wearing condoms and concern about the loss of physical sensation. Factors associated with more condom use included worry about AIDS and positive attitudes towards male contraceptive responsibility (Grady, Klepinger, Billy and Tanfer, 1993; Hingson et al., 1990; Norris and Ford, 1994; Ramos et al, 1993; Sonenstein, Ku and Pleck, 1997; Wulfert and Wan, 1993). Beliefs that their partners would appreciate their use of condoms were also associated with more condom use (Sonenstein, Ku and Pleck, 1997).

There is some tantalizing evidence that condom use among males is not totally driven by concern about HIV or other STDs. Research indicates that the main reason men report using condoms is actually for birth control, not the prevention of STDs. In the 1991 National Survey of Men (NSSM), among those who reported using a condom in the previous four weeks, 49 percent reported that they used condoms for birth control only.

and another 41 percent for birth control and STD prevention; thus, 92 percent say they use condoms for birth control, either by itself or in combination with other reasons (Tanfer, Grady, Klepinger, and Billy, 1993). The NSM data further indicate that use of condoms only for birth control is particularly likely among white (55 percent) compared to Black (18 percent) men, among men aged 30 or older (60 percent) compared to younger men (41 percent), and among married men (83 percent) compared to single men (24 percent). Similar results are found in the National Survey of Adolescent Males. When males who used a condom at last intercourse were asked why they did so, 83 percent reported only to prevent pregnancy, 12 percent to prevent disease, and only 2 percent for both reasons (Sonenstein, Ku, and Pleck, 1997).

More attention must be paid to men's motivation to contracept and to avoid contraception, and their perceptions of their partner's motivation. Most of the existing research has concentrated on teenage males or slightly older cohorts. There is a need to understand better the contraceptive motivation of adult men, especially adult unmarried men.

- *Further research is needed to understand the intersection of concern about STD transmission and about unintended pregnancy in male's motivation to use condoms.*

Men's perceptions of contraceptive responsibility. There has been quite a lot of research documenting males' perceptions of the level of responsibility they have to contracept. These studies show that most men profess that contraception is a joint responsibility (Marsiglio and Menaghan, 1987; Sheehan, Ostwald, and Rothenberger, 1986). Studies have also attempted to assess other aspects of perceived contraceptive responsibility such as who should initiate discussion about contraception or who should pay for contraception. These studies find very high proportions of males reporting joint responsibility (Sheehan, Ostwald, and Rothenberger, 1986; Marsiglio, 1985; Marsiglio and Menaghan, 1987). Results from the National Survey of Adolescent Males confirm the results of prior studies using more limited samples suggesting that men believe they bear a high level of responsibility for knowing or asking partner whether she is using contraception, for initiating discussion about contraception if it has not occurred, for using contraception if he does not want a child, and for assuming joint responsibility for any child if he makes someone pregnant. For these four items, males' mean response is close to ceiling of the response scale. The exception is responsibility for helping pay for the partner's pill use, but even here, more than two-thirds of the sample agrees.

Predictors of endorsement of male contraceptive responsibility include egalitarian attitudes about women's roles, non-traditional attitudes specifically about men's gender roles, being older, and expecting to complete more years of education (Marsiglio, 1985; Marsiglio and Menaghan, 1987; Pleck, Sonenstein, and Ku, 1993).

- ***Studies are needed to measure better attitudes about contraceptive responsibility among males and to understand the relationship between gender role ideology and contraceptive motivation.***

Men's motivation regarding sterilization During the last two decades sterilization has become the most widely used contraceptive method used among married couples in the US (Miller Shain and Pasta, 1991). In 1995, the National Survey of Family Growth reported that 41 percent of married women ages 15-44 or their partners had a sterilizing operation. Almost one quarter (24 percent) reported a tubal ligation and one-seventh (13 percent) said their male partners had been sterilized (Chandra, 1997). While the incidence of male sterilization has grown from the early 1970s, its increase has not been nearly as rapid as the increase in female sterilization. Indeed in 1973 rates of male and female sterilization were comparable. There has been some research on motivation of both males and females towards sterilization, most of it focussing on married couples (Chandra, 1997; Forste, Tanfer and Tedrow 1995; Miller, Shain, and Pasta, 1991). Most of this work has also examined couple dynamics. Decisions about who gets sterilized appear to result in the partner who is most motivated to end childbearing having the operation (Miller, Shain, and Pasta, 1991). Thus the fact that more women undergo sterilization may not necessarily reflect male's negative views of vasectomy so much as their female partner's positive motivation to end their childbearing.

- ***More research is needed to understand the role of male motivation regarding their own sterilization and that of their partner. In particular it would be useful to have baseline data on men's attitudes towards vasectomy since the popular belief is that these are fairly negative.***

Men's motivation to impregnate. Although unintended pregnancy has been shown to be a major problem in the US, very little research has focused on the male perspective on this problem. Indeed male's motivation to impregnate women is not understood, although Marsiglio has given a name to the phenomenon, calling it "procreative consciousness (1988)." The National Survey of Adolescent Males has examined how men say they would react if they impregnated a partner without intending to do so. About one-third of males think they would have to quit school. Almost all males think they would have to give money to help support the baby. Hardly any males think that the availability of the options of abortion and of marriage means that unintended pregnancy is "not worth worrying about" or "not a big problem." Two-thirds say an unintended pregnancy would make them "very upset."

NSAM investigators also studied the role of attitudes about masculinity in these sexual and contraceptive behaviors in adolescent males. The questionnaire asked respondents directly "If you got a girl pregnant now, how much would it make you feel like you were a real man?" In common parlance, males' perceptions of masculinity are recognized as central to understanding their sexual behavior. However, this apparently obvious factor has been relatively neglected in research. In our data, only 5 percent say that fathering a child would make them feel like "a lot" like "a real man," and adding in those who say that impregnation would give them this feeling "somewhat" yields only a fifth of the sample. Our later analyses indicate that experiencing pregnancy as validating their masculinity is an important contributor to risky sexual behavior (Pleck, Sonenstein, and Ku, 1993), but it is nonetheless noteworthy that a relatively small proportion of males view pregnancy in this way and that these males may be more numerous in particular communities or subcultures.

Some analysts have noted the connection between some males' orientation to impregnation, their views of masculinity and their ability to be economic providers, a key male role in US culture. They have hypothesized that lack of access to economic opportunity leads disadvantaged males to perceive sexual prowess and potency as alternative means to establish their masculinity and status (Anderson, 1989, Gagnon and Simon, 1973, Majors; 1986.)

- ***Research needs to be conducted about male's motivation to impregnate women.***

- ***Measures of male motivation to impregnate women need to be developed.***

Men's motivation regarding childbearing Most men report a desire to have children at sometime during their lives (Mott, 1983, Marsiglio,1991). Psychologists have conducted a substantial amount of research on motivation regarding childbearing typically conceptualizing this motivation in terms of values and disvalues (Beckman, 1987), costs and benefits (Seccombe, 1991), utilities (Townes, Beach, Campbell and Wood, 1980) and attitudes (Davison and Jaccard,1976). Typically the measures focus on the positive or negative values assigned to particular consequences weighted by a cognitive component assessing the likelihood that the consequence occurs (Miller, 1995). In a study of married couples conducted by Miller men rated lower on positive childbearing motivation than women and higher on negative childbearing motivation; those who already have one child are also higher on positive childbearing motivation and lower on negative childbearing motivation. While a little work has looked at male motivation among married couples, there is little work done among other types of couples or among men in general.

- ***The work done on men in marital relationships regarding motivation to have children needs to be developed more fully and also extended to include a more widespread understanding of men's orientation to childbearing in cohabiting and more transient relationships.***

Men's motivation regarding abortion There have been very few studies that have looked at male perspectives on abortion and their role in the abortion decision. Two surveys of college students indicated that almost all believe that men did not have the right to force a woman to have an abortion, but a man's opinion should be considered (Rosenwasser, Wright and Barber, 1987). A study of the partners of women obtaining abortions found that the majority agreed with their partner's decision. Almost 60 percent had positive feelings about the abortion, 13 percent had negative feelings and the remainder had mixed feeling (Shostak, 1984). Among married couples, men were found to have more liberal attitudes towards abortion than women and among both genders, more acceptance of abortion was generally associated with negative childbearing motivation (Miller, 1994).

Given the number of unintended pregnancies that occur and that are either terminated or brought to term, it is important to understand better how males feel about abortion and how potentially these feeling play out when a child is born. The National Survey of Adolescent Males contains measures of attitudes towards abortion, and the most recent data include measures of whether abortion was considered when pregnancies occurred.

- ***More research is needed about the male partner's perspective on unintended pregnancy and his views of abortion as a potential resolution to such a pregnancy.***

The Development of Predispositions

Since there is so little work done on motivation for reproductive behaviors among males, it should not be a surprise that we also know very little about the factors influencing the formation of these traits. Most work that has been done limits the findings to descriptions of the distribution of these traits in the population by race/ethnicity, age, and education levels

- ***Once we understand motivation better in the descriptive sense, the next priority should be to develop and test theories describing how motivations develop.***

Biological Factors. The formation of traits which motivate individual behavior is "a long and complicated process in which life experiences act in conjunction with biological characteristics to form learned dispositions (Miller, 1995)." Let us start with the evidence about physiological factors. Human beings, like other primates, are programmed to engage in sexual activity. Although many investigators tacitly accept that sexual behavior has important biological underpinnings that affect "drive" or motivation, relatively little research has actually examined biological factors for their affect on behavior. Udry and colleagues have conducted the most systematic and extensive exploration of the possible biological determinants of age at first intercourse. In one series of studies (Udry and Billy, 1987; Udry et al, 1985; Udry, Talbot and Morris, 1986) they showed that whereas male sex hormones were related to sexual interest and motivation in both male and female early adolescents, the transition to first sexual intercourse was strongly predicted by these hormones for white males but not in white females. Newcomer and Udry (1984) also studied the relationship between the timing of mother's first sexual intercourse and the timing of their adolescent children's transition to non-virginity. A strong positive relationship was observed. Among female children this relationship was partly mediated by the daughter's level of pubertal development, suggesting a possible genetic basis for the intergenerational transmission. The evidence, although quite sketchy, suggests that further research on the genetic and physiological underpinnings of sexual behavior are a promising avenue for future research.

- ***Little research that has examined the contribution of genetic and physiological factors to sexual behavior in either males or females. This is an important topic for future work.***

Family Influences. The emergence of male and female orientations to reproduction appear early in development and seem to result from the complex interaction of genetics, physiology, individual history, family experience, and normative and cultural influences. Gender differences in orientation to nurturing children, for example, emerge at ages 4 through 6 (Miller, 1995). The characteristics of family of origin--family structure, religiosity, education levels, social class, and employment status of parents, for example--are known to be associated with age of initiation into sexual activity, contraceptive use, and experience with early pregnancies and births among teenage females and males.

- ***Given the early emergence of gender differences in motivations for reproductive behavior, it is important to support longitudinal studies that begin when the study participants are children and follow them into early adulthood. New technology makes it possible to potentially include bio-measures like genetic mapping, hormonal assays and the like. Longitudinal studies of both boys and girls are needed.***

Peer and Community Influences. The social contexts that individuals live in provide continuous socialization into and reinforcement of the group's expectations regarding behavior. For example, the attitudes and norms of a young man's peers will likely influence his reproductive behavior. A particularly promising line of fertility research has examined the contextual effects of various normative environments on reproductive behaviors of both males and females (Billy, Brewster and Grady, 1994). These studies have been facilitated by two technological advances: (1) the development of linked data sets that are multi-level and provide measures of neighborhood, school, peer group, and polity characteristics and (2) a burgeoning literature on hierarchical statistical approaches.

- ***Efforts to create multilevel data sets should be supported. The feasibility of adding contextual measures to sample surveys that are currently freestanding should be explored.***

Linking Motivation and Behavior

The most extensive work linking motivation to behavior has been conducted about contraceptive use. It has been common in recent years to analyze females' contraceptive choices as rational consequences of their perceptions and beliefs about contraception and pregnancy (Adler, Kegeles, Irwin, and Wibbelsman, 1990; Jaccard, Helbig, Wan, Gutman, and Kritz-Silverstein, 1990). Research applying the same approach to males, however, has begun only recently. These studies indicate that whether or not males use condoms indeed varies with the attitudes, beliefs, and perceptions males hold about condoms and male responsibility in contraception (Pleck, Sonenstein , and Ku, 1990).

Clearly much work needs to be conducted before all the potential links between motivation and the full range of reproductive behaviors are fully explicated, for either males or females. The theoretical model presented at the outset of this paper provides a simplified picture of the processes that we need to understand better. Given the status of existing knowledge we think that the following priorities are important.

- *Measures of many of the key concepts are not yet fully developed for females, and even less so for males. Therefore one important research investment needs to be made in developing and testing measures of the traits that predispose men and women to act in certain ways. Only after the measures are developed are we in a better position to study how these predispositions develop and to also study how they are distributed in scientifically representative samples of the general population, or subpopulations.*

- *Some progress can be made understanding reproductive behavior by adding male respondents to ongoing surveys of females like the National Survey of Family Growth. However we note that more work is needed on the measurement of motivation regarding a number of reproductive behaviors. The area in which we are best poised to gain understanding is contraceptive motivation because more preliminary work has been done in this area.*

- *The ultimate goal should be to develop a comprehensive understanding of the motivational underpinnings of reproductive behavior for both males and females-- an understanding that incorporates physiological, social and cultural influences and which includes a developmental focus.*

Summary of Principles and Recommendations

Principles

1. It is important to gain scientific understanding of motivation and the links between motivation, intention and behavior.

2. An understanding of fertility behavior cannot be achieved if males are considered in isolation from their female partners and the cultural and social context within which their interaction occurs.

Recommendations.

1. Better Description of Predispositions is Needed.

   Sexual Activity Motivation

   - Research about male (and female) reproductive behavior needs to focus on motivation to engage in sexual activity and motivation to be abstinent.

   - Work to develop and test measures of motivation regarding sexual activity should be carried out.

   - Further analyses of existing data from the NHSLS and other data sets should be conducted and disseminated to further the understanding of the scientific community and the public about the potential importance of these predispositions in understanding reproductive behavior.

   Contraceptive Motivation

   - More research is needed about men's own motivation to contracept and their perceptions of their partner's motivation. On the flip side, we need to understand better the motivation not to contracept.

   - Further work is needed on men's real motivation to use condoms, especially among adult unmarried men.

   - Further research is needed to understand the intersection of concern about STD transmission and unintended pregnancy in males' motivation to use condoms.

Sterilization Motivation

- More research is needed to understand the role of male motivation regarding their own sterilization and that of their partners. In particular it would be useful to have baseline data on men's attitudes towards vasectomy.

Motivation to Impregnate

- Research is needed about males' motivation to impregnate females.
- Measures of male motivation to impregnate females need to be developed.

Motivation to Have Children

- The work on men in marital relationships regarding motivation to have children need to be developed more fully and extended to include men in cohabiting and also transient relationships.

Perspectives on Unintended Pregnancy and Abortion

- More research is needed about the male partner's perspective on unintended pregnancy and his views of abortion as a potential resolution to such a pregnancy.

2. Better understanding of how predispositions develop is needed.
    - There is surprisingly little research that examines the contribution of physiological and biological factors to sexual behavior in either males or females. This is an important topic for future work.
    - Given the early emergence of gender differences in motivations for reproductive behavior, it is important to support longitudinal studies that begin when study participants are children and to follow them into adulthood. New technology makes it possible to include bio-measures like genetic mapping, hormonal assays and the like. Both boys and girls should be studied.
3. Linking motivation and behavior
    - Measures of key concepts are not yet full developed for females, and even less so for males. An important research investment is the

development and testing of measures of the predispositions held by males and females regarding reproductive behaviors.

- Some progress can be made understanding reproductive behavior of males by adding questions and male respondents to the National Survey of Family Growth.

- The ultimate goals should be developing a comprehensive understanding of the motivational underpinning of reproductive behavior for both males and females. This understanding should incorporate physiological, social and cultural influences and include a developmental focus.

4. Needed data efforts

- More detailed analyses should be conducted with existing data sets, both domestic and international.

- Male respondents and paired couples should be included in surveys that currently focus on females.

- New small scale data collection efforts are needed which focus on measuring and understanding motivation and its role in reproductive behaviors.

- Eventually large scale population based surveys should include measures of motivation, behavior, and potentially biomarkers.

References

Adler, N.E., Kegeles, S.M., Irwin, C.E., Jr., and Wibbelsman, C. (1990). Adolescent contraceptive behavior: An assessment of decision processes. *The Journal of Pediatrics*, 116(3), 463-471.

Beckman, L.J. (1987). "Changes in Motivation for Parenthood Among Young Married Couples." *Population and Environment: Behavioral and Social Issues.* 9, 96-110.

Billy, J.O.G., K. Brewster, and W.R. Grady. 1994 " Contextual Effects on Sexual Behavior of Adolescent Women." *Journal of Marriage and the Family* 56 (May): 387-404.

Anderson, E. (1989) "Sex Codes and family life among poor inner-city youths. In W.J. Wilson (ed) *The Ghetto Underclass: Social Science Perspectives. Annals of the American Academy of Political and Social Sciences*, Newbury Park, CA.:Sage 59-78

Catania, J.A., Coates, T.J., Stall, R., Turner, H., Peterson, J., Hearst, N., Dolcini, M.M., Hudes, E., Gagnon, J., Wiley, J., and Groves, R. (1992) "Prevalence of AIDS-related Risk Factors and Condom Use in the United States. *Science* 258:1101-1106.

Chandra, A. (1997). "His or Hers: Choice of Contraceptive Method Among Married Couples in the U.S." Paper presented at the Annual Meeting of the Population Association of America, Baltimore.

Davidson, A.R., and Jaccard, J.J. (1976). "Social-psychological Determinants of Fertility Intentions." In S.H. Newman and V.D. Thompson (Eds.). *Population Psychology: Research and Educational Issues*. Washington, D.C.: U.S. Government Printing Office, 131-137.

Forste, R., Tanfer, K., and Tedrow, L. (1995) "Sterilization Among Currently Married Men in the United States, 1991." *Family Planning Perspectives*, 27(3):100-107, 122.

Gagnon, J. and Simon, W. (1973) *Sexual Conduct: The Sources of Sexuality*. Chicago: Aldine.

Hingson, R.W., L. Strunin, B.M. Berlin, and T. Heeren. (1990). "Beliefs About AIDS, Use of Alcohol and Drugs, and Unprotected Sex Among Massachusetts Adolescents." *American Journal of Public Health*, 80:295-299.

Jaccard, J., Helbig, D.W., Wan, C.K., Gutman, M.A., and Kritz-Silverstein, D.C. (1990). Individual differences in attitude-behavior consistency: The prediction of contraceptive behavior. *Journal of Applied Social Psychology*, 20(7), 575-617.

Laumann, E.O, Gagnon, J.H., Michael, R.T. and Michaels, S. (1994) *The Social Organization of Sexuality: Sexual Practices in the United States*. Chicago; University of Chicago Press.

Majors, R. (1986) Cool pose: The proud signature of black survival. *Changing Men*. Winter, 5-6.

Marsiglio, W. (1985). Husbands' sex-role preferences and contraceptive intentions: The case of the male pill. *Sex Roles*, 12(5/6), 655-663.

Marsiglio, W. (1991) "Male Procreative Consciousness and Responsibility: A Conceptual Analysis and Research Agenda" *Journal of Family Issues*, 12:268-290.

Marsiglio, W., and Menaghan, E.G. (1987). Couples and the male birth control pill: A future alternative in contraceptive selection. *The Journal of Sex Research*, 23(1), 34-49.

Miller, W.B. (1994). "The Relationship between Childbearing Motivations and Attitude toward Abortion among Married Men and Women." *Family Planning Perspectives*, 26, 165-168.

Miller, W.B. (1995). "Childbearing Motivation and its Measurement. *Journal of Biosocial Science*, 27, 473-487.

Miller, W.B., Shain, R.N., and Pasta, D.J. (1991). "Tubal Sterilization or Vasectomy: How Do Married Couples Make the Choice." *Fertility and Sterility*. 56 (2): 278-284.

Mott, F. (1983) Fertility data in the 1982 National Longitudinal Surveys of Work Experience of Youth: An evaluation of data quality and some preliminary analytical results. Center for Human Resource Research. The Ohio State University

Norris, A.E. and Ford, K. (1994). "Association between Condom Experiences and Beliefs, Intentions and Use in a Sample of Urban, Low-income, African-American and Hispanic Youth."*AIDS Education and Prevention*, 6:27-39.

Newcomer, S.F. and Udry, J.R. (1984) "Mother's Influence on the Sexual Behavior of their Teenage Children. *Journal of Marriage and the Family*, 46. 477-485.

Pleck, J.H., Sonenstein, F.L., and Ku, L.C. (1990). Contraceptive attitudes and intention to use condoms in sexually experienced and inexperienced adolescent males. *Journal of Family Issues*, 11(3), 294-312.

Pleck, J.H., Sonenstein, F.L., and Ku, L.(1993). "Masculinity Ideology: Its Impact on Adolescent Males' Heterosexual Relationships." *Journal of Social Issues*, 49(3):11-29.

Ramos, R., Shain, R.N., and Johnson, L. (1995). " 'Men I Mess With Don't Have Anything to do with AIDS:' Ethno-Theory to Understand Sexual Risk Perception." *Sociological Quarterly*, 36:483-504.

Rosenwasser, S.M., Wright, L.S., Barber, R.B. (1987). "The Rights and Responsibilities of Men in Abortion Situations." *Journal of Sex Research*. 23(1): 97-105.

Seccombe, K. (1991) Assessing the Costs and Benefits of Children: Gender Comparisons among Child Free Husbands and Wives. *Journal of Marriage and the Family* 53. 191-202.

Shostak, A.B., McLouth, G. And Seng, L. *Men and Abortion: Lessons, Losses and Love*. New York: Praeger, 299-304.

Sonenstein, F.L., Ku, L., and Pleck, J.H. (1997). "Why Young Men Don't Use Condoms: Factors Related to the Consistency of Utilization." *Sexuality and American Policy* 8:1-26 Menlo Park, CA.: The Henry J. Kaiser Family Foundation.

Tanfer, K., Grady, W.R., Klepinger, D.H., and Billy. J.O.G. (1993) "Condom Use Among U.S. Men, 1991. *Family Planning Perspectives*, 25: 61-66.

Townes, B.D., Beach, L.R., Campbell, F.L. and Wood, R.L. (1980) "Family Building: A Social Psychological Study of Fertility Decisions." *Population and Environment: Behavioral and Social Issues*, 3: 210-220.

Udry, J.R. and Billy. J.O.G. (1987). *American Sociological Review*. 52. 841-855.

Udry, J.R., Billy, J.O.G., Morris, N.M., Groff, T.R. and Raj, M.H. (1985) "Serum Androgenic Hormones Motivate Sexual Behavior in Adolescent Human Males." *Fertility and Sterility* 43, 90-94.

Udry, J.R., Talbert, L. And Morris, N.M. (1986) "Biosocial Foundations for Adolescent Female Sexuality." *Demography*, 23, 217-218.

Wulfert, E. and Wand, C.K. (1993). "Condom Use: A Self Efficacy Model." *Journal of Adolescent Health*. 12:346-353.

APPENDIX E

DATA AND RESEARCH NEEDS CONCERNING UNION FORMATION AND DISSOLUTION

Arland Thornton
University of Michigan

David Arnaudo
Department of Health and Human Services

Bill Marsiglio
University of Florida

Barbara Sugland
Child Trends, Inc.

Linda Waite
University of Chicago

March 1998

Prepared for NICHD Workshop "Improving Data on Male Fertility and Family Formation" at the Urban Institute, Washington, D.C., January 16-17, 1997.

Introduction

This paper has been written to provide a broad overview of union formation and dissolution in the United States. Our primary goal in writing the paper is to consider the current state of knowledge concerning the formation and dissolution of unions. We discuss a broad range of things that are currently understood about union formation and dissolution, and, more importantly, consider some of the important things that are currently unknown or very dimly understood. An important element of the paper is to provide recommendations concerning steps that can be taken to enhance further our understanding of these important processes. Because of the breadth of the union formation and dissolution topic, we recognize that our review cannot be exhaustive in covering all dimensions of the topic.

We begin our paper with a discussion of the institution of marriage. We focus on the meaning of marriage and the ways in which the cultural and institutional underpinnings of marriage vary from other union forms such as nonmarital cohabitation. This section also briefly considers the role of the legal system and public policy in union formation and dissolution. The paper then turns to a brief discussion of some of the historical changes which have occurred in union formation and dissolution. We consider trends in both behavior and the norms and values underlying the formation and dissolution and unions. Our next broad area concerns the causes and consequences of union formation and dissolution. Here we address such issues as the processes leading to the formation or dissolution of a union. We also consider the factors that might influence the rate of union formation and dissolution. Also discussed are factors that would move people toward different kinds of unions such as marriage, cohabitation, and unions that do not involve coresidence. An important element here is the ways in which childbearing and childrearing are involved in, influence, and are influenced by the processes and decisions of union formation and dissolution.

In the latter part of the paper we turn our attention to future research. We consider some of the important gaps in our knowledge and make recommendations concerning approaches for furthering our understanding. Of particular importance here are the changes which have occurred in union formation and dissolution and the ways these changes influence our data collection system. We discuss ways in which our data system could be enhanced to further our knowledge of union formation and dissolution. While much of our current knowledge is drawn from large-scale quantitative data sets, we explore the potential usefulness of qualitative approaches--both by themselves, and also in combination with quantitative approaches. Again, we acknowledge that the breadth of the topic of union formation and dissolution makes any attempt at a full and comprehensive review beyond the scope of this paper. We end the paper with a brief summary of the main recommendations for additional data and research.

The Meaning of Cohabitation, Marriage and Other Relationships

The Institution of Marriage

The institution of marriage is characterized by a public, legally-binding, long-term commitment by an individual to another individual and to their union. The marriage contract explicitly includes sexual fidelity and mutual support, even during bad times. Marriage as an institution is supported by social norms, by organized religion, and by laws and public policies.

Marriage is by its very nature a public commitment between two adults. Wedding ceremonies mark the passage of the partners from one status and set of expectations to another. The participation of family and friends both alerts them to the occurrence of the transition and mobilizes their support for the new couple. The wedding ceremony revolves around the promises--public and legally binding--of the partners to love, honor, cherish and remain faithful to each other until death. The public commitment brings with it public recognition of the privileged and special relationship between husband and wife. The terms "husband" and "wife" carry with them a recognition of the legal, moral and emotional relationship between the partners.

The language that describes the relationships of married couples to each other and to family tells others how to expect the individual to behave across whole domains of life, from work to going out socially to behavior toward other men and women to the way the individuals handle their finances. The symbols of marriage, including wedding rings and the language used to describe the relationships, provide social recognition for the "coupleness" of husband and wife. These constitute a set of powerful social supports of marriage. This pervasive and implicit social recognition of the special rights and obligations of a husband to his wife and of a wife to her husband encourages the actors to play their roles fully, and in doing so molds men and women into "husbands" and "wives".

Most Americans define themselves as members of a religious denomination and the vast majority say that they believe in God. For these people, religious beliefs and values undergird the marriage contract, at least to some extent. Almost all religions sanctify marriage and promote the establishment and maintenance of family relationships. Organized religions offer institutionalized moral support for love, intimacy, and childbearing within the context of religiously sanctioned marriage (Thornton 1985). They also discourage sexual intimacy and childbearing outside marriage (Aldous 1983).

The social approval that religious communities give to marriage and to the married encourages people to get married in the first place and encourages them to stay married. The disapproval of the members of one's congregation--or the loss of their approval--can loom large for the two-thirds of Americans who are members of a church or synagogue and constitutes a cost of divorce.

Married men and women are expected to be sexually faithful to their partners. Pledging to "keep only onto each other, as long as you both shall live" is part of marriage vows in many religious ceremonies. Virtually all married men and women say, when asked, that they expect to be monogamous and that they expect their spouse to be faithful to them. In fact, so few of the married say that they don't expect to give and receive fidelity that we can say that expectations of sexual faithfulness are a universally-shared cornerstone of marriage (Tabulations from the National Health and Social Life Survey, 1992).

Marriage is--by definition--a long-term contract. Marriage vows include the promise to stay together, no matter what happens, until the union is broken by the death of one of the parties. Of course, this is not what happens to many marriages; according to the best projections of demographers who study marriage something over half and perhaps as many as two-thirds of all recent marriages will end in divorce rather than death (Martin and Bumpass 1989). But this is not the ending that people expect when they marry, and the vast majority of all married men and women think that their marriage will last. Kara Joyner finds that married and cohabiting couples tend to see the stability of their relationships very differently. Among those in relationships that began no more than six years ago, 12% of the married women and 11% of the married men say that their chances of breaking up are about even or higher. For cohabiting women this figure is 28% and for cohabiting men 26% (see Kara Joyner. 1996. Ph.D. dissertation, Department of Sociology, University of Chicago).

People who expect to be part of a couple for their entire lives--unless something awful happens--organize their lives differently than people who expect to be single. The marriage contract, because it is long term, encourages husbands and wives to make decisions jointly and to function as part of a team. This expectation of a long-term working relationship between husband and wife allows the partners to develop *some* skills and to neglect others because they count on their spouse to fill in where they are weak. Thus married couples benefit from specialization and an exchange of "spousal labor." The institution of marriage helps individuals honor this long-term contract by providing social support for the couple as a couple and by imposing social and economic costs on those who dissolve their union.

Marriage assumes sharing of economic and social resources and what we can think of as co-insurance. Spouses act as a sort of small insurance pool against life's uncertainties, reducing their need to protect themselves *by themselves* from unexpected events.

Married couples benefit--as do cohabiting couples--from economies of scale. Couples living together spend much less per capita on many of the costs of living, especially housing and food. This means that couples can have the same standard of living for much less money than can an adult living alone.

Marriage connects people to other individuals, to other social groups (such as their in-laws), and to other social institutions which are themselves a source of benefits. It provides individuals with a sense of obligation to others, which gives life meaning beyond oneself. It may change the psychological dynamics of the relationship in ways that bring benefits. Some consensus exists that marriage improves women's material well-being and men's emotional well-being, in comparison with being single.

The (Incompletely Institutionalized) Institution of Cohabitation

Cohabitation has some but not all of the characteristics of marriage. Cohabitation does not generally imply a lifetime commitment to stay together; a substantial minority of cohabiting couples disagree on the future of their relationship (Bumpass et al. 1991). Cohabitants seem to bring different, more individualistic values to the union than do those who marry (Clarkberg, Stolzenberg, and Waite, 1995). Goldscheider and Kaufman (1996:89) believe that the shift to cohabitation from marriage signals "lower commitment of women to men and even more so of men to women and to their relationship as an enduring unit." Perhaps as a result, some scholars view cohabitation as an especially poor bargain for women; Jones concludes:

> The increasing trend toward consensual partnering in the West, seen by many as an emancipation from rigid concepts of marriage, may represent a new enslavement rather than freedom for women (1994:900).

Cohabitants are much less likely than married couples to pool financial resources, more likely to assume that each partner is responsible for supporting himself or herself financially, more likely to spend free time separately, and less likely to agree on the future of the relationship (Blumstein and Schwartz 1983). This uncertainty makes both investment in the relationship and specialization with this partner much riskier than in marriage, and so reduces them. Whereas marriage connects individuals to other important social institutions, such as organized religion, cohabitation seems to distance them from these institutions (Stolzenberg et al. 1995; Thornton, Axinn, and Hill 1992).

Cohabiting unions are much less stable than marriages. Research using data from the National Survey of Families and Households has shown that 90 percent of cohabiting couples either marry or separate within five years (Bumpass, Sweet and Cherlin, 1991). Evidence from Canada suggests that about half of cohabiting couples separate and half marry (Wu and Balakrishnan, 1995).

The Legal System and Marriage

Marriage is a legally binding contract between two individuals. The status of marriage as a legal contract means that the legal system enforces the rights and obligations between the spouses and oversees the dissolution of the contract in the event of divorce.

Until quite recently, the marriage contract was based on the notion of "status," the rights and obligations inherent in the particular relationship of the individual to others. "Husband," as a legal status historically carried a different set of rights and obligations than the legal status of "wife." By becoming a "husband" or "wife", a person took on a particular social role, which located him or her within a network of relationships. The status or role of husband or wife prescribed behavior based on expectations or social norms. Some of the behavior expected of husbands and wives was delineated in the marriage contract or by the legal system on the basis of the marriage contract and society's moral vision of marriage. (For an excellent discussion of changes in family law as they affect marriage, see Regan, 1996).

This view of marriage was part of a larger package of supports and restrictions. Legal marriages could generally only be dissolved, if at all only by egregious breach of the marriage contract. In some states, consent of both parties, or a lengthy period of legal separation, was required to obtain a divorce. Currently under no-fault divorce, available in all states, no charge of marital misconduct is required. Either spouse may dissolve the marriage if he or she so desires, even if both spouses have lived up to the terms of the marriage contract and regardless of the wishes of the other spouse.

We have moved toward a view of marriage as a contract that reflects an agreement between the individuals involved, an agreement that they are free to structure in any way they wish. This view accepts as valid prenuptial agreements that absolve spouses from any continuing financial obligation for each other in the event of divorce, even if this means a very unequal division of resources.

The legal view of marriage as an arrangement that lasts only as long as it suits both partners undercuts the supports that allow individuals to invest themselves in their marriage. In a world in which at least half of all marriages end in divorce, a world in which both spouses are expected to be financially self-sufficient within a fairly short period after divorce, it becomes risky to put much time, money or energy into one's marriage and rational to invest in oneself or in portable skills and goods. So the structure of incentives have changed in a way that weakens marriage as an institution. This makes any particular marriage more fragile. Married couples are more likely to dissolve their marriage, all else equal, if they live in a state with relatively liberal divorce laws than if they live in a state with relatively restrictive divorce laws (Lillard, Brien and Waite, 1995).

Public Policy and Marriage

In today's world, married people often receive different treatment by the government than single people do. Married individuals face different tax rates than they would if they were not married. In some states, poor *married* parents are not eligible for programs like Aid to Families with Dependent Children (AFDC) that are available to poor single parents. An active policy debate currently rages on the impact of government policies especially eligibility for government transfers and other program that exclude the married. Do eligibility requirements for AFDC, Medicaid, public housing and other programs discourage marriage? No consensus exists.

Although the debate on the impact of government policies on marriage focuses on AFDC and other welfare programs, any program that differentiates between the married and the single could affect behavior. Social Security is an obvious example. Widows receive Social Security payments based on their husband's earnings record, but only if they were legally married. Social Security follows state law in recognizing common-law marriage. So in Illinois, which does not recognize common-law marriage, a woman who lived with a man for thirty years can collect no Social Security on his account if he retires or dies, even if she was financially dependent on him for that entire period. But if a 75-year old woman marries an 80-year old man who dies a year later, she is eligible for his entire Social Security amount as the widow of a covered worker, even though she was not his wife for any of the time he was working (information gathered in extended interviews with the staff at a local Social Security Administration Office).

The federal tax law and parental consent requirements for marriage by teens provide other examples of public policies that may affect the choice of individuals to marry.

Historical Changes in Union Formation and Dissolution

While marriage has historically been and continues to be a central institution in American society, the processes of union formation and dissolution have changed substantially across the past century (Cherlin, 1992; Thornton, 1994). Historically, marriage was an institution entered into by a young man and woman who had experienced a period of courtship, fallen in love, were willing to make a commitment to each other, and had the financial resources to support an independent household. While some people married at relatively young ages, most people married in their twenties, and significant fractions never married. The normative structure of society called for sexual abstinence before marriage, although in actuality, significant numbers had sexual relations before marriage, some brides were pregnant at marriage, and a small number of children were born outside of marriage. Both the formal and informal rules of society called for marriage to be a lifetime relationship, with divorce being relatively uncommon. However, the high levels of mortality in the past produced substantial amounts of marital dissolution.

The past century has brought substantial changes in many dimensions in this system of union formation and dissolution. Among the earliest and most important of these changes were the twin revolutions in divorce and mortality (Cherlin, 1992; Thornton, 1994). At the same time that the dramatic decreases in mortality were increasing the longevity of marriages, the divorce revolution was increasing marital instability. Whereas only a small fraction of marriages contracted in the latter part of the nineteenth century ended in divorce, today demographers project that well over one-half will be terminated by marital discord (Martin and Bumpass, 1989; Bumpass, 1990).

Union formation has also changed dramatically in recent decades. The United States experienced a substantial marriage boom following World War II, with both age at marriage and the number never marrying declining (Cherlin, 1992; Thornton, 1994). This marriage boom helped to fuel the better-known baby boom occurring after World War II. The marriage boom declined during the 1960s and 1970s, with both the pace and extensiveness of marriage quickly returning to the levels of the early twentieth century. Additional changes were occurring in the union formation process in the 1960s and 1970s as premarital sex became much more common, sexual relations were experienced by younger teenagers, and pregnancy and childbearing outside of marriage increased (Ventura et al., 1995). In fact, the increases in nonmarital childbearing have been so dramatic that in recent years approximately one-third of all children are born to unmarried women (Ventura et al., 1995). While this trend in nonmarital childbearing has been fueled in part by rising rates of nonmarital pregnancy, it has also been strengthened by the declines in marriage among premaritally pregnant couples (Ventura et al., 1995).

In recent years union formation has been further modified by the rapid rise in nonmarital cohabitation. In fact, the rise in nonmarital cohabitation has been so rapid in the United States that substantial fractions of all first coresidential unions involve nonmarital cohabitation rather than marriage (Bumpass and Sweet, 1989). In addition, the recent increase in cohabitation has been almost as great as the decline in marriage--with the result being that the total union formation rate from both marriage and cohabitation has been relatively stable across recent decades (Bumpass and Sweet, 1989). While some cohabiting unions are relatively permanent, substantial fractions are of relatively brief duration--with many cohabiting unions being quickly dissolved or transformed into marital unions (Bumpass and Sweet, 1989). One important result of the growth in nonmarital cohabitation is that significant fractions of children born out of wedlock are actually born to coresiding parents. In addition, significant numbers of children of divorced parents are currently living with one of their parents and a cohabiting partner.

Accompanying these behavioral changes in union formation and dissolution have been dramatic shifts in the normative climate surrounding sex, cohabitation, marriage, divorce, and childbearing (Thornton, 1989,1995). Most importantly here has been the dramatic weakening of the normative imperative to marry and to stay married. At the same time, normative proscriptions against premarital sex, nonmarital cohabitation, and out-of-wedlock childbearing have declined dramatically, with large numbers believing that living together before marriage is a good idea. Contraception is widely endorsed among young people today, despite its relatively infrequent or ineffective use among many. These dramatic changes, which have occurred for both men and women, have greatly reduced the control of families and societal institutions over the personal decisions of individual women, men, and couples.

While these dramatic changes in norms and values have permeated almost every corner of society, union formation attitudes vary greatly by age and generation (Bumpass et al., 1991; Michael et al., 1994; Pagnini and Rindfuss, 1993; Thornton, 1989). Compared to older people, the young are much more accepting of premarital sexual relations, unmarried cohabitation, nonmarital childbearing, and the idea of never marrying. These age differences in attitudes and values are also reflected in generational differences within the family--with young people having much more accepting attitudes than their parents. These differences across age and generation are true for both males and females. Furthermore, these generational differences are understood by the actors involved and are undoubtedly the source of significant intergenerational tension and conflict.

Despite the significant changes in union formation and dissolution behavior and values, Americans continue to value marriage and family life (Thornton, 1989). Most young people, including both men and women, expect to marry and believe that having a good marriage and family life is quite or extremely important. Most also view divorce in negative terms.

Among the most important issues facing family scholars and policy makers today is the question of why: what are the factors that have driven these important trends in family behavior and values? Numerous explanations have been advanced, including: the shift from an agricultural to industrial to service economy; the increase in women's employment; the decline in economic opportunities for men; the widespread availability and acceptance of contraception and abortion; the decline in the control of religious institutions; the expansion of education; the rise of the welfare state; and the ethos of individualism. Unfortunately, the empirical evaluation of the various explanations of family change is very difficult. Consequently, we only dimly understand the causal mechanisms underlying these changes, the ways in which these causal forces combine and interact, and the ways in which different dimensions of these union formation and dissolution processes are influenced differently by the various causal forces.

We also do not yet fully understand the implications of many of these trends. As indicated earlier, we have some understanding about how marriage and cohabitation differ, but we do not fully understand the different meanings the two types of unions have for society and those involved. We also do not know to what extent cohabitation is a substitute for marriage or a new form of courtship. Also, important are the factors which lead individual couples today to cohabit, marry, or to live apart. Who is making these decisions--men or women? And, what meaning do the new forms of union relationships have for children--both to children born to both members of the couple involved and to children of only the woman or only the man involved?

Of course, we also do not know what the future holds for union formation and dissolution. Given the magnitude and recency of the changes in union formation and dissolution, it would be surprising if current patterns have been fully institutionalized.

Rather, it is more likely that changes will continue, with the trajectory of those changes uncertain. An important element of any research program on union formation and dissolution is continued monitoring of future trends.

International Comparisons

It is useful to place union formation and dissolution in the United States in international perspective, although a full examination of cross-cultural differences is beyond the scope of this paper. We begin by noting that the rate of childbearing among teenagers in the United States is higher than the rate for most of the countries of Europe (Westoff et al., 1983; Ahlburg and DeVita, 1992). In many cases these differences are substantial, especially when the comparisons are with the countries of Western Europe (Westoff et al., 1983; Ahlburg and DeVita, 1992). In addition, the teenage childbearing rate in the United States has been several times higher than the rate in Japan (Westoff et al., 1983; Ahlburg and DeVita, 1992). Note, however, that the American percentage of children born to unmarried mothers is similar to that of several Western European countries such as France and the United Kingdom, but lower than in Sweden and Denmark and higher than in Germany, the Netherlands, and Italy (Ventura et al., 1995; Ahlburg and DeVita, 1992). The percentage of children born to unmarried mothers is several times lower in Japan than in the United States and Western Europe (Ahlburg and DeVita, 1992; Ventura, 1995).

The United States has historically had and continues to have an anomalous divorce rate. The American divorce rate in recent years has been approximately double the rate for many Western European countries (Ahlburg and DeVita, 1992). Note, however, that changes in divorce rates in Western Europe have generally paralleled those in the United States, although at a lower absolute level (Ahlburg and DeVita, 1992).

Although cross-cultural studies are difficult to operationalize because of differences in concepts, measures, and data, we believe that substantial understanding can be obtained through comparative research. This has proven to be true in the area of adolescent childbearing (Jones et al., 1985, 1986), and we believe similar useful work can be accomplished along other dimensions of union formation and dissolution.

Influences on Union Formation and Dissolution

Given the historical centrality of the institution of marriage, it should not be surprising that decisions about union formation and dissolution are intertwined with, influenced by, and consequential for numerous other dimensions of life, including the economy, employment, schooling, economic and psychological well-being, and religious institutions. Furthermore, marriage is frequently an intergenerational process in that parents are generally influential in decisions about dating, courtship, and union formation.

In addition, decisions about union formation and dissolution have important ramifications for the children of the couple involved in the marital transition.

Looking first at parents, we know that many dimensions of the parental family influence the union formation and dissolution experience of their children. Across a range of family issues, including premarital sex, cohabitation, marital timing, and divorce, the values and attitudes of parents influence the attitudes of their children (Thornton, 1992; Axinn and Thornton, 1996). There is also evidence that these attitudes and values of parents influence their children's premarital sexual behavior, experience with cohabitation, and entrance into marriage. The influence of attitudes and values across generations appears to be strongest in families with positive relationships between parents and children (Moore et al., 1986; Weinstein and Thornton, 1989). These intergenerational influences appear to operate for both males and females.

Parental religiosity is also related to the ways in which young people form unions. The religiosity of parents seems to decrease their young adult children having had sexual intercourse and the number of partners (Thornton and Camburn, 1989). Parental religiosity, as measured by both attendance at religious services and the importance of religion in one's life, is also associated with children's higher rates of marriage and lower rates of cohabitation--for both female and male children (Thornton et al., 1992).

We also know that the union formation and dissolution experiences of parents are related to the attitudes and experiences of their children (Axinn and Thornton, 1996; Amato and Booth, 1991; Miller et al., 1987; Lye and Waldron 1993; Moore and Stief, 1991). For example, parental divorce is associated with more positive attitudes toward premarital sex and greater frequency of sexual intercourse among unmarried males and females. Children of divorce also have more accepting attitudes toward divorce, unmarried childbearing, and cohabitation. Parental marital disruption also increases the rate of cohabitation in the second generation. Premarital pregnancy and young age at marriage in the parental generation are also associated with higher rates of union formation, both marriage and cohabitation, among children. Parental divorce is also associated with higher rates of marital instability in the second generation. These intergenerational effects appear to hold for both males and females.

Parental resources also influence children's union formation. Parental economic standing, as measured by education and income, is positively related to parental preferred ages for children to marry and children's actual ages at marriage--for both males and females, although apparently stronger for males than females.

Although we know that the parental generation influences the union formation and dissolution experiences of young people, the causal mechanisms producing these effects are not well understood. While there are reasons to believe that genetic factors are important in these intergenerational effects, the magnitude of these effects are not clear. It is also not clear how these genetic factors interact with social influences. Furthermore, the social mechanisms responsible for the intergenerational correlations have not been specified or demonstrated well. Even less information is available concerning the ways in which mothers, fathers, and children interact in decisions about the children's dating, courtship, cohabitation, marriage, and divorce.

A growing body of research suggests that the attitudes and behavior of young people are related to the behavior of their siblings (Axinn et al., 1994; East and Felice, 1992; Hogan and Kitagawa, 1985; Friede et al., 1986; Haurin and Mott, 1990; East et al., 1993). This association could be the result of many different kinds of causal forces, including siblings influencing each other, siblings being influenced by similar genetic influences, or siblings being influenced by the same family or neighborhood environments. Unfortunately, research on sibling influences is relatively recent, with little known about causal mechanisms or the ways siblings interact to influence each other.

Union formation and dissolution are also intimately interconnected with other dimensions of an individual's life. We know that there is a strong temporal component in that premarital sexual experience--including its occurrence, pace of initiation, frequency, number of partners (as well as attitudes)--is strongly related to age at first dating and age at first going steady--for both males and females (Miller et al.,1986; Thornton, 1990). Young age at first intercourse is also strongly related to frequency and number of partners for both males and females. There are also good reasons to expect that the timing of dating, going steady, and first intercourse would be related to the pace of entry into marriage and cohabitation. Unfortunately, it is not clear whether these strong correlations in the initiation of various steps in the courtship and union formation process are the result of genetic or social forces, and, if social, the ways in which the social forces operate.

A very important element in the union formation process is education. Young people who are performing well in high school and who have ambitious educational aspirations are less involved sexually than are young people with lower school performance and lesser aspirations in high school (Zelnik et al., 1981; Moore and Waite, 1977). School enrollment after high school substantially reduces the rate of entrance into both cohabitation and marriage, although more so for marriage than for cohabitation--for both women and men (Goldscheider and Waite, 1986; Waite and Spitze, 1981; Thornton, et al., 1995). This effect declines over the early part of the life course for women but not for men. School accumulation (years of schooling) increases the rate of entrance into marriage while decreasing the rate of cohabitation for men, but the results are more ambiguous for women (Goldscheider and Waite, 1986; Teachman et al., 1987; Blossfeld and Huinink, 1991; Hoem, 1986; Thornton et al., 1995). These findings suggest that education is an important sorting device between cohabitation and marriage. While it is possible to hypothesize about the causes for the differential effects of education on marriage and cohabitation, there is little empirical evidence indicating why this effect exists. It is likely that any information explicating this effect would also help us better understand the difference between the meaning and functioning of cohabitation and marriage in the lives of young people today.

In Western societies marriage has historically been viewed as an institution intricately interrelated with economic standing and prospects. The significance of economic considerations in marriage suggests an important effect of earning capacity on the ability to marry. Employment, careers, and earning capacity seem to be particularly important for men, although their importance may be increasing for women as well (Oppenheimer, 1994; Oppenheimer and Lew, 1995; Oppenheimer et al., 1996; Lichter et.al., 1991).

There are important interconnections between individual religiosity and family formation attitudes and experience. High levels of personal religious involvement and commitment are associated with lower levels of acceptance of divorce, cohabitation, premarital sex, unmarried childbearing, not marrying, and remaining childless (Thornton and Camburn, 1989; Sweet and Bumpass, 1990; Lye and Waldron, 1993; Klassen et al., 1989). The religiosity of young adults also reduces premarital sexual intercourse experience (Thornton and Camburn, 1989). Children's religiosity--both attendance and importance--also reduces the cohabitation rate and increases the marriage rate (Thornton et al., 1992). These effects are true for both males and females. Religiosity is also negatively correlated with marital instability. While we know that religiosity is generally correlated with family formation and dissolution, there is little information about the factors producing this effect. Is it integration into a religious community, the authority of religious figures, commitment to historical religious values, or some other dimension that leads to the correlation of religiosity and union formation and dissolution. Interestingly enough, certain union experiences such as cohabitation may cause some people to be less involved with their religious institutions.

We also know that personal attitudes and values are important in union formation and dissolution. Premarital sex attitudes and behavior are positively correlated. Children with positive attitudes toward cohabitation marry at a lower rate and cohabit at a higher rate than others--true for both females and males. At the same time, we know that experience with cohabitation leads to more positive attitudes toward cohabitation (controlling for pre-cohabitation attitudes)--for both males and females (Axinn and Thornton, 1993).

There is also an interesting intertwining of union formation and union dissolution behavior (Lillard et al., 1995; Axinn and Thornton, 1992). Cohabitation is strongly and positively associated with divorce. It is likely that this empirical correlation is the product both of cohabitation being selective of people who have higher risks of divorce and cohabitation itself increasing the risks of divorce. Unfortunately, we still know very little about the precise nature of either the forces selecting people into cohabitation or marriage or the ways in which cohabitation experience might change people's marital stability.

Given that the correlation between cohabitation and divorce is substantial, the sorting out of the causal interconnections promises to provide substantial information about the nature and meaning of cohabitation, marriage, and divorce.

Given recent demographic patterns in divorce, remarriage, and out-of-wedlock parenting, an important contemporary issue relevant to union formation among romantic partners is how they negotiate the presence of children. What types of men are more or less likely to make a serious commitment to a woman who has a child(ren) from a previous relationship(s)? What types of processes are associated with the way men and women negotiate their understanding of union formation? How do men's and women's different perceptions of children affect their relative willingness to pursue a relationship with another person who has a child(ren) (either resident or nonresident)? What are the power dynamics of these types of situations? While policymakers have begun to direct their attention to strategies for helping parents make the transition out of marriage to a postdivorce parenting relationship, what, if anything, can be done about couples forming unions where children of one or both partners are brought into a new romantic relationship?

Another area where knowledge is very limited is couple negotiation and decision-making. The vast majority of the research on the formation of marriages and cohabiting unions focuses on the behavior of only one of the partners, usually the woman. Models of marriage and, more recently, of cohabitation, generally follow individuals who have not yet entered a union over a number of years or between certain ages, to see which people form unions and what type they choose. Although these models have given us a detailed view of the characteristics of men and women that increase the chances that they cohabit or marry, they are inherently limited. Union formation always involves two people, who must agree to enter a partnership and what kind to form. One cannot marry without finding an acceptable mate who is also willing to marry--or cohabit. Single sex models--or any research focused on one half of the pair--can tell us little about the ways the couples negotiate the future of the relationship and the terms under which it will continue. Similarly, research on divorce based on the behavior of individuals tells us little about the ways that couples decide to end their marriage. Disruption of either a cohabiting union or a marriage differs from the process of entering a union, however, in that one person acting without the consent of the other cannot begin a union but can end one. So couple negotiations in the process of union formation may be fundamentally different than couple negotiations over the end of a union.

Any understanding of the role of couple decision-making in marriage or cohabitation requires a fundamentally different approach than has been used to date. This might involve intensive interviewing of both partners in dating couples, as only one of a number of possible approaches. We know very little about appropriate research techniques to shed light on these inherently dyadic processes.

A particularly important issue concerning couple negotiations and decisionmaking concerns the reasons that lead men and women to enter into unions, to choose the kinds of unions they do, and to dissolve unions once they are formed. Why are so many unions today fragile? What are the considerations and motivations that lead people to dissolve the unions they form? What are the different roles and concerns of men and women in these decisions?

Issues for Couples following Union Dissolution

The increasing frequency of marital dissolution and out-of-wedlock childbearing raises particularly important issues concerning the support and rearing of the children involved. Heavy emphasis is currently being made to foster the continued involvement of the father after divorce and in never-married families.

One emphasis has been the maintenance of financial contributions by the absent parent. According to the Office of Child Support Enforcement, currently the level of child support is near $12 billion per year (Office of Child Support Enforcement, no date). According to a recent Current Population Survey, 54% or 6.2 million women and men with dependent children from an absent spouse had a child support order of which 5.3 million were supposed to receive child support in the survey year (U.S. Bureau of the Census, 1995). Approximately half of those who were supposed to receive child support received full child support, a quarter received partial child support payments, and a quarter received none (U.S. Bureau of the Census, 1995). Poor families that have orders receive child support at almost the same rate (though not amount)--69% vs 75%--as non poor families. Poor families have a lower rate of child support orders than non poor families. Reasons for not establishing awards include: Did not pursue an award (34%), unable to locate the other parent (17.5%), did not want child support (17.5%), other parent unable to pay (16.5%), paternity not established (5.7%), and other financial agreement made (5.5%).

Recently significant strides have been made to establish formal paternity for fathers in unwed families. All states are required and most have programs to establish voluntary paternity at the birth of the child or soon afterward. The paternity establishment rate is near 50%. Due to the welfare reform laws which now time-limit welfare, there will be increased emphasis to push the paternity rate to the 90% level (Office of Child Support Enforcement, no date). Results of a survey by Arkansas of poor pregnant women shows that these women indicate that in 75% of the time they want to establish paternity and that in 71% of the time the fathers would cooperate; yet in fact only slightly over 30% of these women did file an affidavit with the in-hospital program (State of Arkansas, Department of Finance and Administration, 1997). Surprisingly, of those women who said they did not want paternity established (25% of the total), only 3% said that they did not know who the father was (State of Arkansas, Department of Finance and Administration, 1997). Also, only slightly over 4% of these women said they were afraid of 'what the father might do'. Other reasons for not wanting paternity establishment include: do not want father involved, he is already giving me money, do not know where he is, he is not involved, don't want to lose benefits, he can't pay, and he might want custody and visitation.

Another significant development has been the proliferation of provisions for visitation and joint custody for non custodial fathers. The Current Population Survey indicates that 43.1% of all non-custodial parents have visitation privileges, 9.7% have joint custody, and 7.2% have both visitation privileges and joint custody. This same survey finds that almost 80% of those with visitation or joint custody pay child support compared with only 55% of those with neither. Nick Zill and Christine Nord in a recent study for the Department of Health and Human Services find an association with payment of child support and visitation; however the cause and effect is difficult to establish since the type of parent who wants to pay also may want to visit. They find, however, based on limited longitudinal SIPP data, that increased visitation or father involvement might be driven by payment of child support as opposed to the other way around. They also document continued contact by fathers in unwed families as well as a trend for greater father involvement in general.

Although approximately one-half of children living apart from their fathers see their fathers very infrequently, this trend may have the potential for being reversed due to continued and increased emphasis on child support enforcement, paternity establishment and provision of visitation and joint custody rights for non custodial mothers and fathers. Recent changes in the welfare laws providing for time limited welfare will put increasing pressure on paternity establishment and child support enforcement which may in turn stimulate greater involvement by non-custodial parents after divorce and separation.

Given the growing importance of the issues of paternity establishment, child support, and custody and visitation, it is important to know more about these processes and how they work. It is also important to know more about how they influence the lives of those involved--not only the children, but the mothers and fathers as well. More information is also needed concerning the way that child support, paternity establishment, and custody and visitation influence interaction patterns among mother-child, father-child, and mother-father dyads.

Data Needs

As union formation and dissolution have evolved in recent years, the data requirements for describing and explaining behavior and trends have become more complex and rigorous. When coresidence, sex, childbearing, and childrearing were all primarily centered around the institution of marriage, it was straightforward to limit the unions of interest to marriage and to focus attention exclusively on entrance into and exit out of marriage. However, as sex, coresidence, pregnancy, childbearing, and childrearing have become increasingly separated from the institution of marriage, limiting scholarly attention only to marital unions leaves much of the story outside of the purview of investigators. In fact, the amount of action in these domains that is occurring outside of marriage has become so large that it is becoming increasingly difficult to justify scholarly studies of union formation and dissolution in the United States that do not extend themselves beyond marriage and divorce.

The partial separation of so many activities from marriage requires that we devote considerable attention to the concept of "union". What do we mean by unions? What are the important dimensions of unions that are of central interest to us? Is it coresidence? Economic intertwining? Sexual intimacy? Childbearing? Childrearing? How do we translate these important substantive concepts into language and questions that elicit the appropriate responses from people participating in our studies? These are central conceptual and methodological issues that require considerable additional thought and clarification.

While we argue that the concept of marriage is no longer sufficient to capture sufficiently the concept of union, we also believe that it continues to be a primary concept in studies of union formation and dissolution. This means that empirical studies need to study the processes leading into marriage and those leading out of marriage. It also means that at a minimum we need to obtain full marital histories in empirical studies, including dates of all marriages, separations, and remarriages.

We also believe that it is important to collect information on cohabiting unions. This is important because these unions involve several of the central dimensions historically associated with marriage, including coresidence, intimacy, and economic interchange. They also frequently involve childbearing and childrearing. In addition, they frequently are part of the process leading up to marriage itself. The growing importance of cohabitation makes it important for studies of union formation and dissolution to ascertain full histories of individual entrance into and exit out of such unions. Furthermore, the growing acceptance of nonmarital cohabitation makes it possible to successfully collect this information--something that has now been accomplished in multiple large-scale studies.

While we accept the premise that the kind of data to be collected in a project necessarily depends upon the goals, structure, and resources of the project, we believe that any survey project designed to study union formation and dissolution must, at a minimum, ascertain from respondents full histories of cohabitation and marriage. This means obtaining dates of entrances into cohabitation and marriage, separations from cohabitation and marriage, and divorces. Furthermore, while we recognize that the number of such unions that some respondents experience sometimes motivates researchers to truncate the number of marriages and cohabitations they ask about, experience tells us that such truncations can sometimes substantially limit our ability to study union formation and dissolution. Therefore, we recommend, wherever possible, that basic studies of union formation and dissolution ascertain complete marriage and cohabitation histories.

We believe that it is particularly important that our basic systems for monitoring changes in union formation and dissolution include information on both marriage and cohabitation. Historically, our major efforts for monitoring trends in union formation and dissolution have focused on marriage and divorce. Our primary data sources for this purpose have historically been the vital registration system, the decennial census, the annual Current Population Surveys, and the occasional marital history supplements to the Current Population Survey. We understand that the Survey of Income and Program Participation also collects marital history information from its participants. However, while these data sources have provided solid information about marriage, separation, and divorce, they collect limited cohabitation information and the cohabitation data they do collect do not include histories of entrance into and exit out of cohabitation. Because of this, they are not fully sufficient as monitors of levels and trends of union formation and dissolution. It is our recommendation that the federal system be expanded to include data collections permitting this broader monitoring of union formation and dissolution.

Additional studies have shown themselves to be valuable sources of information concerning union formation and dissolution. These include both studies that involve only one interview with the respondents and others that have followed the same respondents over a period of time. Many of these studies, particularly those that include panel components, have been especially important for understanding the determinants of union formation and dissolution. Among the studies that have been particularly valuable for this purpose are the Panel Study of Income Dynamics, the National Longitudinal Study of the High School Class of 1972, High School and Beyond, National Study of Families and Households, the National Survey of Family Growth, National Longitudinal Survey of Youth, and the Intergenerational Panel Study of Parents and Children. In fact, much of our knowledge concerning the determinants of union formation and dissolution comes from studies such as these.

Our purpose here is not to review the union formation and dissolution information collected in these data sources, since that is beyond the scope of this paper. Instead, our purpose is to argue that for these studies to be maximally useful for examination of union formation and dissolution that they need to assemble full marriage and cohabitation histories from their participants. These can be assembled retrospectively in one interview with a respondent. Or, more optimally, they can be assembled by splicing together short inter-survey cohabitation and marriage histories obtained in multiple waves of panel studies. This information about union formation and dissolution permits the examination of the causes and consequences of such behavior. Further details concerning the ways in which cohabitation and marriage histories may be collected in surveys are provided by Thornton and Young-DeMarco (1996).

There may also be studies for which marriage and cohabitation data may be insufficient as indicators of union formation and dissolution. For example, in studies of sex, pregnancy, and/or childbearing the limitation of unions to marriage or cohabitation may leave too many important unions outside the purview of the study. In such cases it may be important to define unions on the basis of sexual intimacy or some other criteria.

Studies of union formation that are serious about investigating the processes leading up to marriage, cohabitation, or childbearing may also need to recognize additional kinds of relationships, such as dating, going steady, and engagement. One of the difficult issues in such studies is the identification of the important concepts to be used in the investigation and then being certain that these concepts have similar meanings across different subgroups of the population to be studied. Additional research in this area is needed.

Earlier we mentioned several important data sets that have provided substantial information valuable for understanding union formation and dissolution in the United States (and there are others). Many of these data sets have the potential to support additional analyses to provide insights into some of our unanswered questions. We strongly encourage continued support for research utilizing these existing data sets.

There are several existing and planned studies that will be collecting information that is relevant to union formation and dissolution. We recommend that efforts be made to explore the possibilities of expanding these data sets in ways that will make them more valuable for understanding union formation and dissolution. This could further expand our potential for addressing important remaining questions.

As we have indicated in previous sections of this paper, much is known about the union formation and dissolution attitudes and behavior of men. This is true because many of the data sets used for studying union formation and dissolution include information about both women and men and their unions, thereby permitting parallel analyses of the attitudes and behavior of men and women. These data sets also permit examination of the ways in which gender intersects with union formation and dissolution. Unfortunately, our ability to understand union formation and dissolution from the male perspective is sometimes limited by data shortcomings. This can occur because, in some cases, data sets are limited to women, thereby, making it impossible to study men using those data resources. In other cases, data about men can be limited because of the difficulties of locating men and persuading them to participate in data collection projects. Since the lack of appropriate data about men and the ways in which they view and experience union formation and dissolution can restrict our knowledge of these issues, we recommend that considerable effort be made to include both men and women in our data collections and analyses. As we argued earlier, it is also often useful to include men and women who are partners in the same data collection in order to examine couple dynamics.

We also believe that cohabitation and marriage bring together two individuals with their own childbearing and union formation histories. The histories of both partners are very likely to influence the patterns of partner interaction, childbearing and childrearing, and marital stability. These considerations suggest the need for collecting family formation and dissolution information about both partners in a relationship.

While currently existing and planned data sets are valuable for studying union formation and dissolution, we believe that each of them are limited in ways that restrict their usefulness for answering many of the important substantive questions we have about the causes and consequences of union formation and dissolution patterns. Since most of these data sets were designed for other purposes, they are missing some of the key elements for definitive studies of union formation and dissolution. Consequently, we believe that serious consideration be given to designing and fielding a new study designed explicitly for the purpose of understanding union formation and dissolution.

Although the provision of a detailed plan for such a study of union formation and dissolution is beyond the scope of this paper, we will briefly sketch several key components that we believe should be included. This study should be designed so that it can follow the union formation process as it unfolds over time. This means that the study must begin early enough in the life courses of young people that it can ascertain baseline measures of the important hypothesized determinants of union formation before those determinants are substantially influenced by the union formation processes in question. This also implies a longitudinal design that follows young people across time as they enter and exit different kinds of relationships and unions.

We also suggest that such a study be designed to include a broad range of determinants and processes of union formation and dissolution. Included among the determinants of union formation should be the genetic, other institutional factors such as school and employment, religion and values, and individual goals, expectations, and abilities. The value of the study would be particularly enhanced if it were designed to evaluate the processes and mechanisms by which many of the currently known determinants of union formation and dissolution operate. The study would also be enhanced if it could build in methodologies to study decisionmaking processes.

It would be particularly valuable if a new study could be placed in a broad intergenerational framework where it considered explicitly the influence of fathers and mothers on the union experience of young adults. The inclusion of siblings in the study would also provide significant opportunities to study family influences operating through both biological and social routes. If possible, it would be useful to include peers in the design.

A new study of union formation and dissolution should include both males and females and should specifically address the gendered nature of relationships. We know that marriage has different meanings for men and women as well as different implications for the two genders. These gender differences, along with their meaning and implication should be included explicitly in such a study.

We also believe that a new study of union formation and dissolution should contain a qualitative component to evaluate the meaning of union formation and dissolution in people's lives. What do cohabitation, marriage, and divorce mean? What are the motivations to marry, cohabit, or divorce? What are the bargains made in marriage and cohabitation? What bonds partners together? In what ways are the meanings of marriage and cohabitation linked to fatherhood and motherhood? Exploration of subgroup and cultural differences would be particularly important here. The potential of the study would also be enhanced by the use of an integrated multi-method design that allows both qualitative and quantitative research within the same theoretical and empirical project

Using Qualitative Data to Study Union Formation and Dissolution

We believe that qualitative studies can be valuable resources in increasing our understanding of union formation and dissolution. There are numerous qualitative/ethnographic studies that explore the social and cultural context of interpersonal relationships and union formation/dissolution. However, most of this work does not explicitly examine union formation/dissolution per se. Rather, these studies explore other factors that may have a significant effect on the formation and stability of unions, such as early childbearing, crime, and social disengagement. The focus of more recent qualitative work has been on adolescent childbearing and young adult fatherhood, and tends to examine factors that contribute to the formation of less stable unions or unions that do not involve coresidence. There is relatively little qualitative work on the formation of more stable unions and the factors that serve to maintain such unions over time. Nonetheless, existing work offers insights into interpersonal relationships in young and mature adult life. In particular, findings suggest that notions about gender roles, sexual identity and ideology, cultural scripts regarding male/female relations, peer groups/family support networks and contextual factors (e.g., economic opportunities), significantly influence both the initiation of unions, the type of unions that are formed, and the stability of unions over time.

For instance, it is presumed that individuals come to the interpersonal context with a predetermined set of codes and notions about sex appropriate roles and expectations. Although many aspects of relationships have become more egalitarian, specific sex roles and ideologies (i.e., masculine vs. feminine behaviors) still exert a strong force. Males, more frequently than females, are perceived as most appropriate to initiate an interpersonal exchange, from a simple request for a date, to a proposal of marriage, although the process of courtship/dating may be more egalitarian now than in the past (Orbuch, Veroff and Holmberg, 1993). In addition, females who initiate relationships or make advances to males still tend to be viewed as aggressive or "too loose" or "fast" (Sugland, Wilder, and Chandra, 1996).

Another example is the masculine role of "breadwinner/good provider". Qualitative work shows that men and women (and even extended kin) often assess the worth of the male as potential spouse or long-term partner in terms of the man's ability to meet the future needs of his mate and family. Less stable or transitory unions tend to form when the female (and extended family networks) sees the male as "not having much to offer" and the male feels unable to uphold his responsibility as provider (Stack, 1974; Anderson, 1989; Sullivan, 1993). Marital instability, particularly among adolescents, have been attributed in part to the husband's inability to support a family financially (Furstenberg, 1976). Furthermore, it has been suggested that increasing the formation of more stable unions would require, in part, increasing males' capacity to bring more to the "table" (e.g., material and emotional resources) (Furstenberg, 1993). Men's perceptions of their ability to assume or maintain the "mainstream" normative role of provider has also been suggested as an underlying dynamic for husband's and father's estrangement from their families and children, although the desire to be involved may be strong (Sullivan, 1993).

Qualitative studies also suggest that males with few strong role models for male behavior may view more stereotypical male behavior (e.g., need for control, sexual prowess) as appropriate male behavior and shy away from more feminine behaviors like parenting and taking responsibility for parenting if childbearing occurs. In fact, being sexually involved with multiple women simultaneously and fathering children by different women is sometimes viewed as a sign of masculinity (Anderson, 1989). Work by Anderson (1989) as well as Sugland and colleagues (1996) indicates that young males shy away from more committed relationships with females and perceive such unions as "entrapment", "tieing them down" or "limiting their freedom".

Finally, an inability for males and females to trust one another may contribute to the lack of stable union formation among certain population subgroups. Studies describe young men's need to be "running the game" to maintain the upper hand in a relationship (Gilmore, DeLamater, and Wagstaff, 1995), and the need for having "someone on the side" for fear of being hurt or used by their partner (Sugland, et al. 1996).

While qualitative work has provided many insights into intimate relationships, much of what we know about unions (whether marital or cohabiting) comes from large, demographic surveys. In addition, while there is an increasingly greater understanding of male sexual and contraceptive behavior, many of our assumptions about fatherhood and male sexual and fertility behavior are based on models previously used for females, or come from answers provided by female respondents who serve as proxies for the male members of the household. Indeed, one important challenge of learning about union formation/dissolution, and fatherhood in general, is knowing where to start: 1) what issues are most critical for men versus women regarding union formation/relationships? 2) What questions/methodologies are best for gathering reliable and valid information about union formation/dissolution from men versus women? Qualitative research can be useful for charting new territory in this field and can offer more in depth information from men about union formation and dissolution than is currently available from quantitative studies.

For instance, the majority of existing research on union formation/dissolution focuses primarily on marriage and divorce, and more recently cohabitation. However, the number and types of relationships that can and do exist between two individuals is much broader and more fluid than simply marriage and even cohabitation. Focus groups conducted among adolescents regarding pregnancy and sexuality indicate a range of different types of relationships, from the more traditional "boyfriend/girlfriend" with sexual monogamy, to unions described as "associates," where sexual intercourse is the common denominator that binds the two individuals (Anderson, 1989; Sugland, Wilder and Chandra, 1996). Thus, studies which solely address unions formed by marriage or co-residence fail to address a broader context of interpersonal relationships. Such relationships have important implications for fatherhood and the well-being of children born into those unions. Through qualitative research, one could document how males (and females) define a "union" as well as the various types/range of unions that males (females) tend to form, how types of unions differ, which types are most acceptable to men (versus women), what social and cultural meaning is attributed to different unions, the specific purpose for forming certain types of unions (e.g., physical versus emotional satisfaction) and what kind of satisfaction (emotional or otherwise) men (and women) derive from certain unions. One could also explore under which types of unions childbearing is acceptable/unacceptable, appropriate/inappropriate, and whether there are unique differences across race/ethnicity or socioeconomic subgroups and the life course for all of the above.

Information about union formation from a dyadic perspective is also needed and could also be obtained through qualitative work. All unions involve a series of interpersonal exchanges that can include sexual negotiation (even coercion); normative and cultural scripts specific for various unions; partner characteristics; and decision-making strategies and styles. Understanding the interpersonal exchanges that lead to various types of unions or non-unions and the decision making process involved to establish and maintain specific unions would be important. Ethnographic work could examine dating and courtship, and identify under what conditions unions move from casual encounters to more stable and committed relationships such as marriage. What factors influence the likelihood of forming more stable and committed unions, such as marriage or cohabitation? For instance, to what extent do contextual factors (e.g., economic and employment opportunities, racial discrimination) directly influence men's desires for and ability to form and preserve more stable unions with women? Answers to such questions may be critical for understanding racial differences in marriage rates and fertility. Qualitative methodologies could include case studies and story telling with couples in more committed relationships (Orbuch, Veroff and Holmberg, 1993), as well as personal interviews over time with young males and their partners (Furstenberg's Baltimore study), small group discussions such as focus groups (Sugland et al, 1996), and ethnographic studies (Sullivan, 1993; Anderson, 1989).

In addition, qualitative work can provide insight into norms among men regarding the formation and dissolution of relationships and the link to fatherhood. For instance, ethnographic studies demonstrate the importance of cultural and normative views about manhood, fatherhood, and gender roles/norms, and the extent to which such norms influence the types of unions and non-unions that are formed. However, the process through which norms and behaviors regarding sexual identity and intimate relationships are socially modeled and sanctioned for males and by whom (e.g., father, uncles, older brothers, etc.) is less frequently studied. Information on cultural differences in the process of social modeling is also limited. At what period in the life course do males take on norms about gender roles and relationships and parenting? What characteristics define manhood (e.g., stable employment, sexual prowess); to what extent do men value certain types of characteristics over others; and how are unions/non-unions influenced by views of manhood? To what extent do contextual factors such as economic opportunity, etc., influence cultural differences in views about manhood and union formation?

Finally, understanding subgroup differences (e.g., racial/ethnic, socioeconomic, age) in the definition, meaning, and process of union formation can be explored through qualitative studies as well. One could also explore policy and program strategies for strengthening unions and increasing the likelihood of stable union formation, and whether certain types of policies and strategies would be acceptable and potentially successful across different population subgroups.

Summary of Research and Data Recommendations

We begin our summary of recommendations by noting that union formation and dissolution are central elements in the well-being of men, women, and children. While we know a considerable amount about union formation and dissolution, there is much that remains to be learned. We believe that high priority should be given to filling the gaps in our information and knowledge. This will require enlarging and expanding the knowledge that we can procure from currently available data resources. It will also require a sophisticated expansion of the data that we have available for studying union formation and dissolution.

Fulfilling our current data and research needs will require a multi-faceted approach containing many elements. At several points in this paper we have discussed specific limitations in our information and knowledge base for understanding union formation and dissolution and made recommendations for ways to fill those gaps in data and research. In the following paragraphs we provide a summary of the specific component pieces that should be considered as part of a comprehensive program to provide the knowledge and information needed to understand these important processes.

1. Conduct research on the historical trends in union formation and dissolution, with particular emphasis on explicating the explanations and meanings of those changes.

2. Conduct research on the causes and consequences of union formation and dissolution. Of particular importance are the causal processes and mechanisms that lead people into unions,
influence them to form different types of unions, and result in the dissolution of their unions. Among the causal factors where additional research is needed are: the legal system and public policy; parents; siblings; religion; values and attitudes; physiological and genetic factors; education; and the work place.

3. Study the ways in which individuals and couples make decisions about the formation and dissolution of unions. How do individuals negotiate with potential and current partners? What are the processes leading up to union formation and dissolution?

4. Examine the intersections of childbearing and childrearing with union formation and dissolution. Of particular interest here are the ways in which parents living apart from each other, either because of divorce or non-marital childbearing, handle such things as child support, child discipline, custody, and visitation. Also, of importance are the ways in which children may be influenced by and influence the union formation and dissolution experiences of their parents.

5. Conduct both substantive and methodological research concerning the meanings of different kinds of unions today, including marriage, cohabitation, and non-coresidential unions. What do people expect from different kinds of unions and what expectations and preferences motivate their choices?

6. Increase the number of data collections and analyses in which both men and women are included. Also, where necessary, expand the quality of data collected from men. More and better data about men will permit examination of the behavior and attitudes of men and how union formation and dissolution processes are different for men and women.

7. Expand and maintain data collection systems for monitoring future trends in union formation and dissolution. This data collection system should include information that permits monitoring attitudes, values, and behavior.

8. Expand and supplement current data collection efforts to include more information useful for studying the causes and consequences of union formation and dissolution.

9. Plan and field a new study that is designed explicitly to examine union formation and dissolution. Such a study should be designed explicitly to study causes and consequences, negotiation and decisionmaking, and the processes leading up to the formation and dissolution of unions.

10. Conduct additional data collection and analysis using qualitative approaches. Expand the utilization of multi-method approaches in studying union formation and dissolution.

11. Ensure that all data collections focusing on union formation and dissolution be designed to include information about a wide range of union types. All union formation and dissolution studies should obtain full marital and cohabitation histories. For some studies it will be necessary to obtain extensive information about additional types of unions as well.

12. Conduct cross-cultural research to investigate the reasons underlying the important differences among countries in union formation and dissolution.

References

Ahlburg, D.A. and C.J. DeVita. 1992. "New Realities of the American Family." *Population Bulletin* 47(2):1-44.

Aldous, J. 1983. "Problematic Elements in the Relationship Between Churches and Families." In *Families and Religions: Conflict and Change in Modern Society*. Beverly Hills, CA: Sage, pp. 67-80.

Amato, P.R. and A. Booth. 1991. "The Consequences of Divorce for Attitudes Toward Divorce and Gender Roles." *Journal of Family Issues* 12(3):306-322.

Anderson, E. 1989. "Sex Codes and Family Life Among Poor Inner City Youths." *Annals of the American Academy of Political and Social Sciences* 501:59-78.

Axinn, W.G. and A. Thornton. 1992. "The Relationship Between Cohabitation and Divorce: Selectivity or Causal Influence?" *Demography* 29(3):357-374.

Axinn, W.G. and A. Thornton. 1993. "Mothers, Children, and Cohabitation: The Intergenerational Effects of Attitudes and Behavior." *American Sociological Review* 58(2):233-246.

Axinn, W.G., M.E. Clarkberg, and A. Thornton. 1994. "Family Influences on Family Size Preferences." *Demography* 31(1):65-79.

Axinn, W.G. and A. Thornton. 1996. "The Influence of Parents' Marital Dissolutions on Children's Attitudes Toward Family Formation." *Demography* 33(1):66-81.

Blossfeld, H.-P. and J. Huinink. 1991. "Human Capital Investments or Norms of Role Transition? How Women's Schooling and Career Affect the Process of Family Formation." *American Journal of Sociology* 97:143-168.

Blumstein, P. and P. Schwartz. 1983. *American Couples*. New York: William Morrow.

Bumpass, L.L. and J.A. Sweet. 1989. "National Estimates of Cohabitation." *Demography* 26(4):615-625.

Bumpass, L.L. 1990. "What's Happening to the Family? Interactions Between Demographic and Institutional Change." *Demography* 27:483-98.

Bumpass, L.L., J.A. Sweet, and A. Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage." *Journal of Marriage and the Family* 53(4):913-927.

Cherlin, A.J. 1992. *Marriage, Divorce, Remarriage*. Cambridge, MA: Harvard University Press.

Clarkberg, M., R.M. Stolzenberg and L.J. Waite. 1995. "Attitudes, Values and Entrance into Cohabitational versus Marital Unions." *Social Forces* 74(2):609-634.

East, P.L. and M.E. Felice. 1992. "Pregnancy Risk among the Younger Sisters of Pregnant and Childbearing Adolescents." *Developmental and Behavioral Pediatrics* 13(2):128-136.

East, P.L., M.E. Felice, and M.C. Morgan. 1993. "Sisters' and Girlfriends' Sexual and Childbearing Behavior: Effects on Early Adolescent Girls' Sexual Outcomes." *Journal of Marriage and the Family* 55(4):953-963.

Friede, A.C., J.R. Hogue, L.L. Doyle, C.R. Hammerslough, J.E. Sniezek, and H. Arrighi. 1986. "Do the Sisters of Childbearing Teenagers have Increased Rates of Childbearing?" *American Journal of Public Health* 76(10):1221-1224.

Furstenberg, F.F. 1976. "Premarital Pregnancy and Marital Instability." *Journal of Social Issues* 32(1):67-86.

Furstenberg, F.F. 1993. "Young Fathers in the Inner City: The Sources of Paternal Involvement." Unpublished manuscript. Center for Advanced Study in the Behavioral Sciences, Stanford, CA.

Gilmore, S., J. DeLamater and D. Wagstaff. 1995. "Sexual Decision-Making by Inner-City Black Adolescent Males." Center for Demography and Ecology Working Paper 95-04, University of Wisconsin-Madison.

Goldscheider, F.K. and G. Kaufman. 1994. "Fertility and Commitment: Bringing Men Back In." Paper presented at the Workshop on Expanding Frameworks for Fertility Research in Industrialized Countries, National Research Council, Woods Hole, MA, September 22-23.

Goldscheider, F.K. and L.J. Waite. 1986. "Sex Differences in the Entry into Marriage." *American Journal of Sociology* 92:91-109.

Haurin, R.J. and F.L. Mott. 1990. "Adolescent Sexual Activity in the Family Context: The Impact of Older Siblings." *Demography* 27(4):537-557.

Hoem, J.M. 1986. "The Impact of Education on Modern Family-Union Initiation." *European Journal of Population* 2:113-133.

Hogan, D.P. and E.M. Kitagawa. 1985. "The Impact of Social Status, Family Structure, and Neighborhood on the Fertility of Black Adolescents." *American Journal of Sociology* 90:825-855.

Jones, E.F., J.D. Forrest, N. Goldman, S.K. Henshaw, R. Lincoln, J.I. Rosoff, C. Westoff, and D. Wulf. 1985. "Teenage Pregnancy in Developed Countries: Determinants and Policy Implications." *Family Planning Perspectives* 17(2)53-63.

Jones, E.F., J.D. Forrest, N. Goldman, S.K. Henshaw, R. Lincoln, J.I. Rosoff, C. Westoff, and D. Wulf. 1986. *Teenage Pregnancy in Industrialized Countries.* New Haven: Yale University Press.

Jones, G.W. 1994. Review of William J. Goode, *World Changes in Divorce Patterns. Population and Development Review* 20:899-901.

Klassen, A.D., C.J. Williams, and E.E. Levitt. 1989. *Sex and Morality in the U.S.* Middletown, CT: Wesleyan University Press.

Lichter, D.T., F.B. LeClere and D.K. McLaughlin. 1991. "Local Marriage Markets and the Marital Behavior of Black and White Women." *American Journal of Sociology* 96:843-867.

Lillard, L.A., M.J. Brien and L.J. Waite. 1995. "Pre-Marital Cohabitation and Subsequent Marital Dissolution: Is It Self-Selection?" *Demography* 32(3):437-458.

Lye, D.N. and I. Waldron. 1993. "Correlates of Attitudes Toward Cohabitation, Family and Gender Roles." Working Paper 93-10, Seattle Population Research Center, University of Washington.

Martin, T.C and L.L. Bumpass. 1989. "Recent Trends in Marital Disruption." *Demography* 26:37-51.

Michael, R.T., J.H. Gagnon, E.O. Laumann, and G. Kolata. 1994. *Sex in America*. Boston, MA: Little, Brown and Company.

Miller, B.C., J.K. McCoy and T.D. Olson. 1986. Dating Age and Stage as Correlates of Adolescent Sexual Attitudes and Behavior. *Journal of Adolescent Research* 1:361-371.

Miller, B.C., R. Higginson, J.K. McCoy, and T.D. Olson. 1987. "Family Configuration and Adolescent Sexual Attitudes and Behavior." *Population and Environment* 9(2):111-123.

Moore, K.A. and L.J. Waite. 1977. "Early Childbearing and Educational Attainment." *Family Planning Perspectives* 9(5):220-226.

Moore, K.A., J.L. Peterson, and F.F. Furstenberg. 1986. "Parental Attitudes and Early Sexual Activity." *Journal of Marriage and the Family* 48:777-782.

Moore, K.A. and T.M. Stief. 1991. "Changes in Marriage and Fertility Behavior." *Youth and Society* 22(3):362-386.

Office of Child Support Enforcement. No date. "Child Support Enforcement Nineteenth Annual Report to Congress" Administration for Children and Families, Department of Health and Human Services.

Oppenheimer, V.K. 1994. "Women's Rising Employment and the Future of the Family in Industrialized Societies." *Population and Development Review* 20:293-342.

Oppenheimer, V.K. and V. Lew. 1995. "Marriage Formation in the Eighties: How Important Was Women's Economic Independence?" In Karen O. Mason and An-Magritt Jensen (eds.) *Gender and Family Change in Industrialized Countries*. Oxford: Clarendon Press, pp. 105-138.

Oppenheimer, V.K., M. Kalmijn and N. Lim. 1996. "Men's Career Development and Marriage Timing During a Period of Rising Inequality." Paper presented at the 1996 Annual Meetings of the Population Association of America, New Orleans.

Orbuch, T.L., J. Veroff and D. Holmberg. 1993. "Becoming a Married Couple: The Emergence of Meaning in the First Years of Marriage." *Journal of Marriage and the Family* 55:815-826.

Pagnini, D.L. and R.R. Rindfuss. 1993. "The Divorce of Marriage and Childbearing: Changing Attitudes and Behavior in the United States." *Population and Development Review* 19(2):331-347.

Regan, M.C. Jr. 1996. "Postmodern Family Law: Toward a New Model of Status." In D. Popenoe, J.B. Elshtain and D. Blankenhorn (eds.) *Promises to Keep: Decline and Renewal of Marriage in America*. Lanham, MD: Rowman and Littlefield, pp. 157-185.

Stack, C.B. 1974. *All Our Kin: Strategies for Survival in a Black Community*. New York: Harper and Row.

State of Arkansas, Department of Finance and Administration, 1997. Arkansas Prenatal and Postnatal Paternity Acknowledgement Project. Prepared for U.S. Office of Child Support Enforcement, March 31, 1997.

Stolzenberg, R.M., M. Blair-Loy and L.J. Waite. 1995. "Religious Participation Over the Life Course: Age and Family Life Cycle Effects on Church Membership." *American Sociological Review* 60:84-103.

Sugland, B.W., K. Wilder and A. Chandra. 1996. "Sex, Pregnancy and Contraception: A Report of Focus Group Discussions with Male and Female Adolescents." Washington, D.C.: Child Trends, Inc.

Sullivan, M.L. 1993. "Young Fathers and Parenting in Two Inner-City Neighborhoods." In R. Lerman and T. Ooms (eds.) *Young Unwed Fathers: Changing Roles and Emerging Policies.* Philadelphia: Temple University Press, pp. 52-73.

Sweet, J.A. and L.L. Bumpass. 1990. "Religious Differentials in Marriage Behavior and Attitudes." NSFH Working Paper 15, Center for Demography and Ecology, University of Wisconsin-Madison.

Teachman, J.D., K.A. Polonko and G.K. Leigh. 1987. "Marital Timing: Race and Sex Comparisons." *Social Forces* 66:239-268.

Thornton, A. 1985. "Reciprocal Influences of Family and Religion in a Changing World." *Journal of Marriage and the Family* 47(2):381-394.

Thornton, A. 1989. "Changing Attitudes toward Family Issues in the United States." *Journal of Marriage and the Family* 51(4):873-893.

Thornton, A. and D. Camburn. 1989. "Religious Participation and Adolescent Sexual Behavior and Attitudes." *Journal of Marriage and the Family* 51(3):641-653.

Thornton, A. 1990. "The Courtship Process and Adolescent Sexuality." *Journal of Family Issues* 11(3):239-273.

Thornton, A. 1992. "The Influence of the Parental Family on the Attitudes and Behavior of Children." In S.J. South and S.E. Tolnay (eds) *The Changing American Family--Sociological and Demographic Perspectives.* Boulder, CO: Westview Press, pp. 247-266.

Thornton, A., W.G. Axinn, and D.H. Hill. 1992. "Reciprocal Effects of Religiosity, Cohabitation, and Marriage." *American Journal of Sociology* 98(3):628-651.

Thornton, A. 1994. "Comparative and Historical Perspectives on Marriage, Divorce, and Family Life." *Utah Law Review* 1994(2):587-604.

Thornton, A. 1995. "Attitudes, Values, and Norms Related to Nonmarital Fertility." *Report to Congress on Out-of-Wedlock Childbearing*, DHHS Pub. No. (PHS)95-1257. Washington, D.C.: U.S. Government Printing Office, pp. 201-215.

Thornton, A., W.G. Axinn and J.D. Teachman. 1995. "The Influence of School Enrollment and Accumulation on Cohabitation and Marriage in Early Adulthood." *American Sociological Review* 60: 762-774.

Thornton, A. and L. Young-DeMarco. 1996. "Measuring Union Formation and Dissolution in Surveys." Paper presented to the Interagency Forum on Data Needs for Children and Families, Washington, D.C., May 22.

U.S. Bureau of the Census, 1995. "Child Support for Custodial Mothers and Fathers: 1991". Current Population Reports, Series P60-187. U.S. Government Printing Office, Washington, D.C.

Ventura, S.J., C.A. Bachrach, L. Hill, K. Kaye, P. Holcomb and E. Koff. 1995. "The Demography of Out-of-Wedlock Childbearing." *Report to Congress on Out-of-Wedlock Childbearing*, DHHS Pub. No. (PHS) 95-1257. Washington, D.C.: U.S. Government Printing Office, pp. 3-133.

Waite, L.J. and G.D. Spitze. 1981. "Young Women's Transition to Marriage." *Demography* 18:681-694.

Weinstein, M. and A. Thornton. 1989. "Mother-Child Relations and Adolescent Sexual Attitudes and Behavior." 1989. *Demography* 26(4):563-577.

Westoff, CF., G.Calot and A.D. Foster. 1983. "Teenage Fertility in Developed Countries: 1971-1980." *Family Planning Perspectives*, 15(3):105-110.

Wu, Z. and T.R. Balakrishnan. 1995. "Dissolution of Premarital Cohabitation in Canada." *Demography* 32(4):521-532.

Zelnik, M., J.F. Kantner, and K. Ford (1981). *Sex and Pregnancy in Adolescence*. Beverly Hills: Sage Publications.

APPENDIX F

MALE FERTILITY IN RELATION TO UNION FORMATION AND DISSOLUTION

Elizabeth Thomson
University of Wisconsin

Christine Bachrach
National Institute of Child Health and Human Development

Kelleen Kaye
Department of Health and Human Services

Stephanie Ventura
National Center for Health Statistics

Introduction

Male fertility is usually defined and measured in the context of a man's relationship to the woman bearing the child. Though biological fatherhood may require no more than sexual intercourse with a fecund woman, chances of a man being legally recorded on the birth certificate, recognized informally as the child's father, or given access to the child depends on his relationship with the child's mother. The nature of the couple's relationship also plays a large role in the likelihood that the man will become a biological father through its influence on sexual behavior, contraception, and abortion.

In this essay, we address links between men's sexual unions with women and male fertility. "Demographic" dimensions of unions include duration, coresidence, formal marriage, separation and divorce, and the sequencing of multiple unions over the man's life course. "Interactive" dimensions include commitment, communication, emotional intimacy, power, and social embeddedness. We pay particular attention to the characteristics of unions in which male fertility is often unobserved or at best understudied -- nonmarital unions, and second- or higher-order marriages.

Our review of research findings and questions about men's unions and births is organized roughly along the life course. We begin with men's involvement in nonmarital pregnancies and births. How does the nature of the couple's relationship influence sexual intercourse, contraceptive use, and therefore the probability that an unmarried woman will become pregnant? What influence does the relationship have on the resolution of that pregnancy, and how does the pregnancy resolution affect the likelihood that the couple will cohabit or marry? How does nonmarital parenthood influence the quality of the parents' relationship or union stability, whether or not they marry?

We then shift to the marital relationship and pregnancies/births. How does the couple's relationship influence sexual intercourse, birth intentions, contraceptive use, and subsequent childbearing? To what extent do men's desires or plans for children influence the couple's contraceptive use and pregnancy outcomes? What effects do children -- particularly unintended births -- have on the couple's marriage, and to what extent does marital stability play a role in childbearing?

Finally, we consider continuities and discontinuities in men's sequential unions and births. How do early sexual or family experiences influence men's views of sexual relationships and their careers as partners and fathers? How do prior unions and/or parenthood influence the likelihood that men or women will form new unions, and do the effects differ for different types of unions? What are the effects of prior unions or parenthood on fertility in later unions? And how do children born prior to a current union combine with those born in the union to influence the quality or stability of unions?

Most of our information about men's unions and births is derived from information from and about women. For some of the research questions we address, such information may be quite adequate. For example, differences in birth rates between cohabiters and married couples apply to the male as well as to the female partner, and are probably adequately reported by either. For other questions, information from women may be sufficient for analysis, so long as they are asked to provide parallel information about their male partners. Married women, for example, may be able to accurately report their husbands' prior unions and births, particularly marital unions and births, as well as their own marital and birth histories. In many situations, however, we need information from men as well as from women. Whenever we address questions about the subjective dimensions of sexual unions, or wish to know how men's values, attitudes or plans influence their fertility, men's views -- or combined views of partners -- are required. Men may also be the only accurate source of information about their prior sexual unions, pregnancies and births of children with whom they are no longer in contact. We identify situations of "missing male data" throughout the review section of this essay, and discuss the issue further in subsequent sections on available data and recommendations for future data collection and analysis.

Relationship Contexts for Male Fertility Behavior

Sexual relationships have both demographic and interactive dimensions. The key demographic parameters of such unions are coresidence (cohabiting versus visiting unions) and union duration. Coresidence and union duration, in turn, may be associated with interactive relationship characteristics such as commitment, communication, emotional intimacy, power, and social embeddedness. Each of the relationship dimensions we identified may have distinct influences on sexual behavior, contraception, abortion, marriage, and/or union disruption.

Commitment implies some degree of obligation to participate in a reciprocal and enduring relationship, the kind of relationship in which children are most easily raised. In a context in which arranged marriages are outside the boundaries of accepted practice, commitment to a relationship is generally viewed as voluntarily given. It may or may not be sanctioned by legal marriage, but legal marriage limits to some degree the ease with which the commitment may be broken. The degree of commitment is likely to be associated with the level of investment in relationship-specific capital such as shared living quarters, friends, and love. To the extent that such "investment capital" accumulates over time, it is likely to relate to the duration of the relationship, although the pace and trajectory undoubtedly varies from one relationship to another and commitment may never develop in many sexual relationships. To the extent that commitment implies a shared understanding of the future and reflects intimacy and caring, it is likely to facilitate communication. In studies of union formation and fertility-related behavior, indicators of commitment often include items describing the nature of the relationship: going steady, living together, intentions to marry, or perceived probabilities that the relationship will endure.

Communication may vary in relationships according to what is communicated, styles of communication, and communication frequency. Most studies linking communication in relationships to reproductive behavior have relied on relatively simple and specific indicators, e.g., self-reports of whether individuals discussed topics such as birth control or what to do if a pregnancy occurs with partners before having sex. But the general ease with which a couple communicates about thoughts, feelings and goals is likely to underlie good communication about sex, contraception or pregnancy.

Emotional intimacy refers to the level of affect and perceived closeness shared by partners. Few studies have measured this directly, and it is particularly surprising that the multitude of marital quality measures are rarely included in fertility studies. Intimacy is likely to foster good communication, and lead to commitment, but may not be so strongly associated with other interactive dimensions such as power or social embeddedness.

Power in relationships is a complex phenomenon, ranging from relatively benign forms of persuasion to coercion and violence. Most of the research on relationship power and fertility is linked to gender-traditional roles and attitudes. Research shows clearly that cohabiting relationships are more egalitarian than marital relationships, in large part because those who marry are selected from those with more traditional views of men, women, and relationships (Clarkberg, Stolzenberg and Waite 1995). Indicators of power relationships in fertility studies are often indirect, based on the relative social and economic resources of partners (education, employment) or on membership in cultural groups that hold more or less traditional gender views. In some cases, direct measures of the couple's gender attitudes are included.

Within the power dimension, we also include the most extreme forms of coercion and abuse. A large body of evidence indicates that coercion and abuse between intimate partners is not as rare as we might hope. According to national surveys, of the nearly 4 million assaults on women each year, nearly one third are committed by intimate partners (National Center on Child Abuse and Neglect, 1995; National Research Council, 1996). Partner abuse is more likely in cohabiting relationships compared to dating and married relationships, slightly lower in marriage than in dating relationships. Cohabiting couples also reported the highest percentage of severe assaults (Straus and Gelles, 1990). While abuse and coercion was once seen more as impulsive or "out of control" behavior, it is now seen more as a deliberate course of action throughout the relationship, with the goal of achieving control over the other partner. This course of action may include sexual, physical and emotional abuse, as well as economic and other forms of coercion. (Schechter and Ganley, 1995 as cited in National Resource Center on Child abuse and Neglect, 1995). Abuse and coercion between intimate partners likely has significant impacts on all aspects of fertility--sexual intercourse, contraception, and pregnancy resolution.

Laumann and his colleagues (1994) describe sexual relationships as embedded within social relationships with the degree of embeddedness varying across types of sexual relationships. For example, a sexual relationship between spouses is typically crisscrossed with a myriad of social relationships - with friends and kin, with members of the same and different generations. This web of interconnections increases the social capital inherent in the marital relationship and increases the likelihood that all involved will support the continuation of the relationship and react protectively if the relationship is threatened. In the case of nonmarital relationships, the existence of such a protective and supportive social web is less common, at least initially. Sexual relationships between unmarried partners will differ at the start in the degree to which partners know and are known by each others' families, friends, neighbors, and coworkers; as relationships progress the nature and density of these ties will change. The nature of these social webs is likely to have an important effect on how families and peers balance support for the relationship with other conflicting goals, such as maintaining a norm of uncommitted sexual relations (the "hit and run" ethic described by Anderson (1994) in his study of inner city disadvantaged youth) or protecting a son from the burdens of early paternity. To measure the "embeddedness" of relationships requires data on social ties and reference groups; other indicators of embeddedness may include the context in which the partners met, how they currently interact with social networks, and the duration of the relationship.

The demographic and interactive dimensions we have identified may not be the only dimensions of relationships that influence fertility behaviors, but they are those most commonly cited in theoretical explanations or operationalized in empirical analyses. Our review of relationship quality and fertility behavior is not completely balanced with respect to each dimension, since not all dimensions have been given equal attention in fertility research. We address the need for additional data collection and research with respect to dimensions of relationships in our discussion of available data and our final recommendations.

Men's Nonmarital Unions and Births

Nonmarital unions vary from casual sexual encounters to long-term cohabitation. Although we will argue below that cohabitation is a fundamentally different type of union and should be treated separately from nonresident unions, much of the data and analysis on nonmarital fertility does not distinguish cohabiters from other couples. Where such distinctions have been made, we discuss differences between the two types of unions.

Relationships and Sexual Intercourse

Sexual frequency is generally higher in more committed unions, particularly cohabiting unions. Sonenstein, Pleck and Ku (1992) found that frequency of intercourse was higher among young men who had lived with or been engaged to a partner in the past year. Thornton (1990) found that men and women in relationships with partners they planned to marry had much higher frequencies of sexual intercourse than those not planning to marry their partners. Also, sexual frequency was higher among those in exclusive dating relationships compared to those who dated different boys or girls during a recent period. In a national study of men 20-39 years of age, Billy and his colleagues found a strong relationship between type of relationship and single men's sexual frequency in the past four weeks, with median frequencies highest (7.6) among those who were cohabiting, lower (4.7) among those involved in a steady relationship, and lowest (0.2) among those reporting no steady relationship (Billy et al., 1993). Thus, from a simple exposure point of view, more committed sexual relationships have the potential for higher rates of nonmarital pregnancy. One difficulty with this research is that reports of commitment or closeness or other characteristics of a union are typically obtained from only one partner and then more commonly the woman than the man.

The meaning of sexuality and its links to relationship commitment appear quite different for young unmarried men and women. Ethnographic research (Anderson 1994, Stern 1994) suggests that the issue of commitment is a central point of tension and conflict in sexual relationships among low income youth. The conflict rests on stereotypical gendered differences in meaning of relationships to young men and women. The stereotypically female meaning sees relationships as providing commitment, love, and stability; sex is exchanged in hopes of attaining these. The stereotypically male meaning sees sexual success and control of women as a route to social status and power among other men, and relationships with women are managed to achieve this end. Anderson describes how male peer groups enforce a norm of exploitative sexual relationships with women by ridiculing boys who are perceived to be controlled by female partners. Stern describes peer-assisted strategies to monitor sexual exclusivity of female partners.

Marsiglio (1988) uses scripting theory and subjective expected utilities to study adolescent males' attempts to bring sex into relationships with females. The dominant model for adolescent male sexuality over the past decade has been that of recreational or casual sex. "At the heart of this recreational sexual script has been the image that sex is a valuable commodity in its own right, regardless of the relationship context in which it might occur, that sexual activity is desirable as early in a relationship as possible, that more sex is better, and that opportunities to have sexual relations (heterosexual) should generally not be squandered" [p.289]. This dominant script downplays the idea that the level of commitment to partner might modify the script. However, there is evidence that greater commitment does lead young men to put a more "marital-type" script into effect. In early adolescence young men are searching for independence and are less likely (than women) to report that first sex was in the context of a meaningful relationship. The goal of sex is act-centered not relationship-centered. Actual and perceived congruity of partners' scripts will influence the course of interaction.

The extent to which stereotypical attitudes pervade sexual relationships in different population groups is not well known. Pleck and colleagues' (1993) analyses of masculine ideology among U.S. adolescent males clearly show diversity in the extent to which young men adhere to stereotypical views. Stern (1994) notes conflicting values held by women in a young lower class white population, desire to be open about sex warring with traditional norms about promiscuity and the threat of pregnancy without recourse to paternity. These attitudes do appear to be associated with behavior. Among young teenage women, those holding stereotypical gender attitudes (e.g., most women can't take care of themselves without help from men) begin having sex earlier than those with less traditional attitudes (Foshee and Bauman 1992, cited in Moore et al, 1995). Pleck and his colleagues (1993) found that young men (15-19) with traditional male gender attitudes had more sex partners, were less close to their current partner, and disagreed that males have a responsibility to prevent pregnancy.

Some researchers report that by adolescence, both boys and girls endorse scripts for sexuality that go so far as the legal definition of rape. For example, fully 25 percent of middle school, high school and college students say it acceptable for a man to force sex on a woman if he spent money on her (National Academy Press, 1996). It is well documented that in many instances, sexual intercourse occurs within a coercive setting. According to Kris Moore, about 25% of women teens reported experiences of sexual abuse at some time, and between 25 and 30 percent reported being pressured to have sex (Moore, 1989; 1995). This is roughly consistent with findings reported by Small and Kerns (1993) indicating that 21% of adolescent females reported unwanted sexual contact during the previous year. Yet another study indicates that 17 percent of high school students and 11 percent of middle school students reported having unwanted sex. (Erickson and Rapkin, 1991). Koss and Gidycz (as cited in Yllo, 1993) find that 27% of college women recalled an incident that met legal definition of rape since age 14, and over half of these involved a date. In another study relating to young adults, 75% of college men admitted to getting a date drunk or high in order to try to have sex with her (Mosher and Anderson, 1986 as cited in National Research Council, 1996). Intimacy does not appear to be a barrier to coercive sex; Small and Kerns (1993) reported that the percent of unwanted sexual contacts that were initiated by boyfriends was much higher than the percent initiated by first dates (31 percent compared to 18 percent). Koss and colleagues (1993) estimated that over half of date rapes occurred between couples who were in a steady dating relationship (Koss et al, 1993). June Henton reports that one quarter of victims and almost one third of offenders thought dating violence was sign of love (Gelles and Straus, 1988)

Relationships and Attitudes Towards Pregnancy

Few unmarried women want to become pregnant, but those that do may perceive themselves to be in more committed relationships. Zabin (no date) studied pregnancies to 263 low-income women enrolled in clinics at an urban medical center, finding no difference in pregnancy wantedness between women with a "serious partner" and those without a serious partner, net of marital and cohabitation status. Those in a less serious relationship, however, are more likely to say they didn't want a child with that partner. Cohabiting women are more likely than single noncohabiting women to intend to have a child (Bachrach 1987; Rindfuss and VanDenHeuvel 1990) and to have a planned birth (Manning 1992; Zabin no date). What is missing from all of this research are the birth intentions or pregnancy wantedness of the women's partners.

Some evidence suggests a strongly gendered difference in the meaning of pregnancy to unmarried partners. Young men -- particularly those who are disadvantaged in terms of social and economic achievement -- are said to see babies as tangible evidence of sexual prowess and adult status (Anderson 1994). Traditional gender attitudes are also associated with the belief that making a partner pregnant validates masculinity (Pleck et al. 1993). For young women, on the other hand, pregnancy may be viewed positively -- even if unintended -- because it could lead to greater commitment from the child's father as well as signaling adult status.

Relationships and Contraceptive Use

The association between relationship commitment and pregnancy wantedness or intendedness makes the association between relationship characteristics and contraception somewhat difficult to interpret. On the one hand, we would expect more committed, enduring, and/or coresidential unions to be characterized by better communication, greater intimacy, and more egalitarian decision processes, all of which should facilitate effective contraception. To the extent that the couples who are best able to contracept are also those most likely to want or intend children, the association between relationship qualities and contraceptive use may not be straightforward.

Net of intentions, it is clear that communication and effective contraception are greater in longer-term, more committed relationships (Brown and Eisenberg 1995, pp 174-176; Marsiglio 1993). In a recent study, Forrest and Frost (1996) found that union duration was directly associated with contraceptive use. Bachrach (1987) found greater contraceptive use among cohabiting than noncohabiting single women.

Support of the male partner may be critical to contraceptive use within unions, particularly the use of traditionally "male" methods of contraception such as condoms and withdrawal (Kantner and Zelnick 1979; cited in Pleck, Sonenstein and Swain 1988). Santelli and his colleagues (1996), studying women participating in an inner-city street survey, found that partner support strongly predicted the development of intentions to use condoms with a main partner. Resnick (cited in Edwards 1994) studied 550 adolescent females who used school- and community-based clinics, finding that those who discussed the risk of sexually-transmitted diseases or pregnancy with their partners were more likely to use condoms consistently and less likely to experience either STD or pregnancy. Wilson (1994, cited in Moore et al., 1995) found in a sample of black males age 11-19 who attended an urban medical clinic that communication with partners prior to sexual intercourse was not associated with greater contraceptive use, but was specifically associated with greater condom use.

The gendered character of sexuality and fertility is also reflected in contraceptive behavior. Pleck and his colleagues (1993) reported that young men with more traditional gender attitudes less likely to use condoms than those with more egalitarian views.

In recent years, condoms have become even more important as prophylactics than as contraceptives, and as a result the association between dimensions of couple relationships and condom use has become more complex. Condoms are less likely to be used in longer-term relationships than in shorter-term relationships (Forrest and Frost 1996; Ku, Sonenstein and Pleck 1994); are less likely to be used with "primary" than with "secondary" sexual partners (Laumann et al., 1994; Sabogal, Faigeles and Cataria, 1993; Grinstead, Faigeles, Binson and Eversley, 1993; Peterson, Cataria, Dolcini and Faigeles, 1993); and are less likely to be used as relationship commitment increases (Tanfer, et al., 1993; this study shows that use in the past 4 weeks was reported by 18% of married men, 24% of cohabiting men, 44% of single men with a regular partner, and 46% of single men without a regular partner). The condom's efficacy in preventing disease transmission and the primacy of that reason for use among unmarried couples carries with it a subliminal message linking use to actual or suspected lack of exclusivity between partners, perceived risk in the partner's sexual history or perceived lack of "cleanliness". Stern's (1994) ethnographic work reveals ideas among some young women that unprotected sex is an expression of love and commitment. Santelli and his colleagues (1996) find that intentions to use condoms are much less likely in emotionally close relationships. In the case of condom use, then, many of the relationship characteristics we associate with more effective contraceptive use actually work against the use of this method.

It has been suggested that contraception is less likely when sex occurs within a coercive context, but evidence for the connection is limited (Bohigan, 1979). Danielson et al (1990) describes male sexual impatience (dissatisfaction with being sexually inactive) as an attitude that may often be linked to coercive sexual behavior. They find that a male's level of sexual impatience was the strongest indicator of the intention to engage in unprotected sex.

Relationships, Pregnancy and Pregnancy Outcomes

The combined influence of sexual frequency, pregnancy intentions, and contraception appear to produce a higher nonmarital pregnancy rate in more committed unions. For example, Sonenstein, Pleck and Ku (1992) reported that nonblack men were more likely to report a pregnancy in the past year if they had been engaged than if they were not engaged. This result appeared to be due to the higher rates of intercourse reported by engaged men, as the percentage of sexual acts protected by contraceptive use did not differ between engaged and non-engaged nonblack men. Among black men, engaged men reported higher sexual frequencies, less consistent contraceptive use, higher rates of unprotected intercourse, and yet, no more frequent pregnancies than men who were not engaged. Manning (1992) reports that cohabiting women were more likely to become premaritally pregnant than single women of similar ages, an effect that appears stronger for Puerto Rican than for white non-Hispanic or African-American women (Manning and Landale 1996). These variations in the effects of cohabitation or engagement could reflect differences in desires or intentions to have a child. Here is another instance in which both partners' desires or intentions to have a child need to be considered in order to explain how relationship quality and stability influences nonmarital births.

We know very little about unions and abortion decisions. In visiting unions, the greater the intimacy, the less likely the woman will have an abortion and the more likely she is to parent her child (Moore et al 1995 p. 106). Zabin (no date) reported that abortion was more likely when a woman did not want a child with her current partner, even if she claimed the relationship was serious. And in another study of women presenting for pregnancy tests, Toledo-Dreves, Zabin and Emerson (1995, table 3) found that those who conceived by their first partner and ended the pregnancy with abortion had known their partners for a shorter period of time than those who carried the pregnancy to term. Decisions about placing a child for adoption versus parenting have not been linked clearly to closeness to partner (Moore et al., 1995:113). Again, what is missing from this research are the views of the woman's partner about abortion and/or having a child.

Nonmarital Pregnancy and Relationship Outcomes

Pregnancy may also affect the course of the relationship, leading some unmarried couples to cohabit, some to marry, and others to part. The degree to which a nonmarital pregnancy leads a couple to marry prior to the birth of the child appears to be declining. Most of the increase in births to unmarried women is due to changes in marriage patterns rather than to changes in sexual or reproductive behavior of unmarried women (Bachrach, 1996; DHHS 1995; O'Connell and Rogers 1984; Smith, Morgan and Koropeckyj-Cox 1996). It is misleading, however, to treat these two components of family formation as if they were unrelated. Morgan, Offutt and Rindfuss (1995) have shown that the decline in "shotgun" marriage almost completely accounts for the increase in nonmarital births since the early 1960s. That is, a good deal of the influence of changed marriage patterns on nonmarital fertility is changing patterns of marriage in response to pregnancy. The probability of marriage during a first premarital pregnancy ending in birth declined from 52% of women conceiving during the period 1960-64 to 27% of those conceiving during 1985-89 (Bachu, 1991).

Attitudes toward nonmarital childbearing have either followed or accompanied behavioral change; between 1974 and 1985, the percent agreeing that "there is no reason why single women shouldn't have children" increased from 31% to 47% among white women and from 34% to 48% among black women. When nonmarital childbearing comes closer to home -- acceptability of one's own daughter having a child out of wedlock -- approval is much lower, but increased from 8% to 14% over a similar period (Pagnini and Rindfuss 1993). Akerlof and colleagues argue that declines in pregnancy-induced marriage are due to changes in the negotiating power of unmarried women; the technological innovation of the contraceptive pill and increased availability of abortion made women less able to demand a promise of marriage in exchange for sex, since the chances of sex leading to pregnancy and pregnancy to birth were supposedly much more under the woman's control (Akerlof, Yellen and Katz 1996). Without direct evidence on women's and men's views of female or male responsibility for reproductive decisions and behaviors, it is difficult to assess the validity of their claims.

The link between pregnancy outcomes and union formation is complex. Not only do elements of the relationship affect decisions on how the pregnancy is resolved, but decisions of pregnancy resolution affect decisions about the future of the union. It is difficult to disentangle these issues. For example, marital and nonmarital births are the result of the intersection between both fertility decisions (whether to carry the pregnancy to term), and relationship decisions (whether to marry in response to the pregnancy).

There are many aspects of the couple's relationship which likely influence how the pregnancy is resolved and how it affects their union. Recall that sex -- particularly unprotected sex -- in visiting unions may have resulted from opposing male and female goals (freedom and control versus commitment). For the woman, then, pregnancy must be followed by childbirth in order to fully lay a claim on the man. For men, whether the child is born or not may be viewed as irrelevant under the "hit and run" norms for sexual behavior. Furstenberg (1995, p.130) quotes a young man describing his reaction to his girlfriend's pregnancy to illustrate how lack of commitment to the relationship plays a role: "Well, if you want to keep the child, that's fine with me... Whatever you want to do. I don't want you to be held back just cause you doing it for me." He is explicitly telling her that he doesn't want to be obligated to HER. Women are also assumed to be sexually promiscuous and there is strong peer support for denying paternity.

Furstenberg (1995, p.130) describes the "conflicting motives to sort out - responsibility, pride of paternity, and interest in maintaining or not maintaining the relationship, among others" -- if a man is told about a pregnancy. He notes that uncertainty about paternity can be a major factor in the man's response because relationships are often casual and impermanent. Furstenberg describes a period of negotiation involving agreement on paternity and decisions about whether to have the baby, in which not just the partners but their families and friends participate. The latter two can be supportive or nonsupportive of the relationship. Anderson (1994) agrees that some young men have deep relationships with their partners and take pregnancy and paternity seriously (note the connection between the relationship and response to pregnancy). And, like Furstenberg, he says that the man's mother can play an important role in how he responds. Her previous knowledge of the pregnant woman is an important factor in whether she supports his denial of paternity or encourages responsibility.

In the disadvantaged population where such norms operate, male peer groups may urge financial responsibility for babies but steer clear of recommending marriage to mother.

> Marriage is deeply distrusted -- in part as a loss of personal freedom, in part as loss of control over the woman. Money, not coresidence or marriage, is seen as basic to being in control, and lack of stable jobs makes it difficult for young men to provide reliably for their children. Marriage on any other terms is not wanted. In no case in Furstenberg's interviews did the family encourage marriage or cohabitation as a way of increasing the father's commitment. Even in the mid-1960s parents in Furstenberg's Baltimore sample expressed doubt whether fathers could or would provide steady support for their children regardless of whether they married. In addition, if a marriage does end, the consequences could be worse than if the couple never married. Furstenberg (1995) reports from his study of Baltimore women in the 1960s that those who entered unstable marriages fared worse than those who did not marry because they left school and had more children early. Twenty years later, marriage was seen as a foolish thing for a young person.

One of the reasons the dimension of commitment is important is that it may determine, to a large extent, the degree to which men can enjoy access to the benefits of fatherhood. When children remain in the custody of their mother, fathers' access to their children and to father roles tends to depend on a continued relationship to the mother. Willis (Willis and Haaga, 1996) suggests that disadvantaged unmarried men, who enjoy a wide choice of female partners but lack economic opportunities that would enable them to support a family over the long run, develop strategies that substitute multiple uncommitted relationships (many of which may be fertile) for a single committed relationship with a substantial investment in fatherhood. Willis's model implies an inextricable connection between men's decisions about relationships and their approach to childbearing and fathering, operating via the "cost" of commitment and the benefits it brings in terms of access to children.

Nonetheless premarital pregnancies carried to term do precipitate marriage to the child's father, even if less frequently today than in the past (Bennett, Bloom and Miller 1995; Goldscheider and Waite 1986; Landale and Forste 1991). In some cases the marriage takes place shortly after the child's birth rather than before, but is still likely to be a marriage between the child's two parents (Kobrin and Waite 1984; Teachman, Polonko and Leigh 1987; Waite and Spitze 1981). Suchindran, Koo and Griffith (1985) reported that intermarital births also increased the likelihood of remarriage for previously divorced women. In both studies, nonmarital births to black women did not have such precipitating effects on marriage.

At least some of the nonresident partners who do not marry choose to cohabit in response to a pregnancy. Manning (1993) reported that, among single noncohabiting women who became pregnant and had a first live birth, 35% married and 6% cohabited before the child was born. This is consistent with analyses of the same data by Bumpass and Raley (1995) showing that a significant proportion of women having children out of wedlock in fact live with the child's father at the time of the birth. Bennett and his colleagues (1995) also suggest a positive effect of pregnancy on the formation of cohabiting unions. Among Puerto Rican women, the effect of pregnancy on cohabitation was particularly strong for the youngest (age 14-15) women, but continued to have positive effects on cohabitation as well as on marriage for women through age 23 (Landale and Forste 1991). These few studies show that it is essential to identify the resident status of male partners in order to understand responses to nonmarital pregnancies.

Comparisons of cohabiting and noncohabiting single women suggest that prior commitment influences a marital response to pregnancy. Cohabiting women are more likely to marry following a premarital pregnancy than noncohabiting women (Manning 1993), though this effect was not found for women under 20 or for African-American or Puerto-Rican women (Manning 1993; Manning and Landale 1996). The authors suggest that cohabitation is a stage in the marriage process for the white adult women, so that a premarital pregnancy simply speeds up the marriage date. For other women, however, cohabitation is an alternative to being single and raising a child alone, and does not imply a commitment to marry in the event of pregnancy. This interpretation is supported by the finding that cohabiting women who already have a child are somewhat less likely to marry in response to a second pregnancy than are childless cohabiting women. Again, what is missing from this analysis is any information from the male cohabiters or visiting partners about their views of the relationship or the pregnancy.

We know very little about the continuation of visiting unions after the birth of a child. In a study of adolescent women presenting for pregnancy tests (Toledo-Dreves et al, 1995), 65% of those who had carried their pregnancies to term were still in a relationship with the same partner two years later, compared with 34% of those who aborted the pregnancy. Only about 5% of those still in union had married, although many of those who had not married still expected to do so.

Schoen et al. (1996) recently argued that children provide a source of social capital by creating a web of new ties with kin, other parents and institutions. The nature, reach and strength of ties in these child-centered webs are probably strongly dependent on pre-existing circumstances including the commitment between mother and father and the social relations between their families. Linda Burton's (1995) work suggests that even in cases where the baby's father is not involved with the child other members of the father's family may become involved. Yet in other cases whatever social capital **is** generated by a birth may completely bypass the father and his kin.

Pregnancy can also lead to conflicts and stress within the relationship, with increased risk of abusive behavior (O'Keefe, 1995; Schechter and Ganley, 1995). Victims of partner violence are three times more likely to be injured during pregnancy than nonbattered women (Stark et al., 1981). In a representative national sample, 15 percent of pregnant women were assaulted by partners at least once during the first half of pregnancy, and 17 percent during the latter half (Gelles 1988). Another study of women at prenatal clinics found 17 percent had suffered physical or emotional abuse during pregnancy (McFarlane et al. 1992). An additional study of public clinics in Baltimore and Houston found that 22% of pregnant adolescents reported being abused during their pregnancy (National Network for Youth 1995).

However, the nature of this link between pregnancy and coercive or abusive situations is unclear. Many researchers agree that instances of coercion or abuse increase with stressful situations, with changes in family situations, with socioeconomic problems, and with social isolation. To the degree that pregnancy can increase any of those risk factors, it may increase the likelihood of abuse. The research does not seem to indicate, however, that pregnancy increases the likelihood of abuse independent of these other risk factors.[10]

When couples cohabit or marry in response to a pregnancy, the premarital or pre-union pregnancy does not appear to have a strong effect on subsequent dissolution of the union (Billy, Landale and McLaughlin 1986; Bumpass, Castro martin and Sweet 1991;

---

[10] See Bohigan (1979, as cited in National Research Council, 1993), and Gelles and Straus (1988). While originally Gelles and Straus had concluded there was an independent link between pregnancy and abuse, they later revised their conclusions. Based on their second National Family Violence Survey of 1985, they concluded that their original finding was based on spuriousness, and that the true effect they had been detected was that of age. They concluded that women age 18 to 24 were much more likely to suffer from abuse than older women, and that age was the strongest predictor of abuse.

Waite and Lillard 1991).[11] Manning and Smock (1995) provide one of the first analyses of cohabiting couples; they found no significant effect of pregnancy or the birth of children on cohabiters' separation. Wu and Balakrishnan (1995) found, for Canadian couples, that having a first child in the cohabiting union decreases the likelihood of separation, with even larger effects for birth of second or subsequent child (see also Wu 1995). Bumpass and his colleagues (1991) suggest that norms for premarital sex and pregnancy are sufficiently accepting that only the most committed couples marry in response to a pregnancy, couples who might have married in any case at a later date. These couples may also have been those who were most desirous of having children together. Although Brown and Eisenberg (1995) cite several studies showing a negative effect of unintended pregnancy, most of which occurred premaritally, on the stability of subsequent marriages, these associations may result from unmeasured factors that increase probabilities of both unintended birth and marital disruption.

Men's Marital Unions and Births

Marital relationships may vary along the same dimensions as nonmarital relationships, but may also be distinguished from nonmarital relationships in demographic and interactional terms. While cohabiters make a stronger commitment -- through coresidence -- to their relationship than nonresident partners, married couples make an even stronger commitment by subjecting themselves to the legal requirements of marriage. Persons who marry rather than cohabit are more strongly committed to the institution of marriage (Axinn and Thornton 1992; Thomson and Collela 1992; Thornton, Axinn and Hill 1992), and exhibit stronger personal commitment to their particular relationship (Nock 1995). These commitments produce a much lower dissolution rate for marriages than for cohabiting relationships (Bumpass and Sweet 1989). Married persons are happier in their relationship than are cohabiters, and also get along better with their extended kin (Nock 1995). Finally, married partners are selected from those with more traditional gender attitudes, compared to cohabiters (Clarkberg et al. 1995).

Differences between marriage and cohabitation -- and particularly between marriage and visiting unions -- have varying implications for the behaviors leading to childbearing and parenthood. Sexual frequency is sufficiently high not to be a major factor in marital fertility, although it is lower than among cohabiting couples and declines over time (Call, Sprecher and Schwartz 1995; Laumann, Gagnon, Michael and Michaels 1994). Given the commitment of marriage, it is not surprising that married women are more likely than unmarried women to be seeking pregnancy. They are also, however, more likely to use contraception or to be sterilized, if pregnancy is not sought, compared to unmarried women (Mosher and Pratt 1990, cited in Brown and Eisenberg 1995). As a result, marriage produces a much lower rate of unintended pregnancy (Forrest 1994, cited in Brown and Eisenberg 1995) than in nonmarital unions. On the other hand, the marital relationship provides more support for carrying the child to term, so that married women are much less likely to have an abortion than unmarried women, even if they did not intend to have a child (Forrest 1988, cited in Brown and Eisenberg 1995). Taken together, these patterns combine to produce a much higher percentage of intended births among married women than for women in other types of unions: 60% compared to 12% for never-married women and 31 % for formerly married women (Forrest 1988, cited in Brown and Eisenberg 1995). Loomis and Landale (1994) found a higher rate of childbearing in first unions when the couple was married rather than cohabiting.

---

[11] Using a more socioeconomically select sample (high school graduates), however, Stephen, Ryan and Gregori (1995) did find a positive effect of premarital conception on disruption. They also found a stronger effect for men than for women, which could arise from underreporting of premarital conceptions by men who remained married.

Surprisingly little research has been conducted on the nature of a marital relationship and fertility-related behaviors. As we might expect, marital happiness is directly associated with sexual frequency (Call, Sprecher and Schwartz 1995). As for unmarried couples, it appears that marital communication increases contraceptive use when couples do not want to have a child (Beckman, Aizenberg, Forsythe and Day 1983). Rainwater (1965) showed in an early study that marital quality was positively associated with effective contraception, and Miller (1986) found that such effects were particularly strong for coitus-dependent methods which require partner cooperation. Severy and Silver (1993) found higher rates of female sterilization when husbands were unhappy in the marriage, and higher rates of male sterilization when wives were unhappy. It is not clear whether this pattern represents an effect of sterilization choice on marital quality or the reverse.

Most of the research on marital relationships and births has focused on the question of husbands' influence on contraceptive use and pregnancy. Several studies have documented considerable agreement but also significant disagreement between partners (e.g., Muhsam and Kiser 1956; Czajka 1979; Beckman 1984; Westoff, Mishler and Kelly 1957; Westoff, Potter, Sagi and Mishler 1961; Williams 1991). Early analyses suggested that wives' influence on couple contraception and births was greater than that of husbands (Beach, Campbell and Townes 1979; Beach, Hope, Townes and Campbell 1982; Beckman, Aizenberg, Forsythe and Day 1983, Bumpass and Westoff 1970; Clark and Swicegood 1982; Freedman, Freedman and Thornton 1980; Fried and Udry 1979; Townes, Beach, Campbell and Wood 1980; Westoff et al. 1961). More recent analyses have tested differences between partners' influence, most often finding it to be relatively equal (Miller and Pasta 1995; 1996b; Sobel and Arminger 1992; Thomson forthcoming; Thomson and Williams 1982; 1984; Williams 1986). Miller and Pasta (1996a) suggest that the relative influence of spouses may vary across parity-specific decisions.

Some of this research also shows that spousal disagreement has unique effects on contraception or births. For example, among U.S. couples surveyed in the 1950s and 1970s, those who disagreed about having a child were as likely to use contraception as couples who both wanted to postpone or to avoid pregnancy (Thomson 1989). On the other hand, disagreeing couples in the 1950s (Princeton Fertility Survey) had third birth rates exactly in the middle of rates for couples who both wanted a third child and those who did not (Thomson, McDonald and Bumpass 1990). Williams' (1986) analysis of the Indianapolis Fertility Survey suggests that childbearing disagreements during the Depression led to delayed births rather than to a middle outcome, and this pattern has been replicated among recent childbearing cohorts (Miller and Pasta 1994; 1995; 1996a; Townes et al. 1990; Thomson forthcoming). These results support the theory of inertia proposed by Beach and his colleagues (Davidson and Beach 1981; Beach et al. 1982), in which couple disagreement favors the status quo. When contraception is routine, disagreement inhibits decisions to cease contraception and attempt pregnancy, favoring the partner who does not want a child.

A few studies have investigated the power/dominance dimension of marital relationships in terms of couple contraceptive and childbearing decisions. Fried and Udry (1979) found that effects of husbands' desires were stronger among African-American and/or dual-earner married couples, whose marriages are most likely to be egalitarian. Thomson (forthcoming) reported no such differences, however, using a more recent, nationally representative sample and direct measures of gender attitudes. Miller and his colleagues (1991) reported that men in relatively more egalitarian marriages were more likely than gender-traditional men to obtain a vasectomy, instead of the wife obtaining a tubal ligation.

Research on children and marital disruption has implications for the relationship context of marital fertility. Some research suggested that children increased marital stability (e.g., Heaton 1990; Waite and Lillard 1991; Wineberg 1992). Lillard and his colleagues used simultaneous hazard models to estimate the extent to which the apparent positive "effect" of children derives instead from a negative effect of marital instability on childbearing. If couples believe their relationship is weak or likely to dissolve, they may be less likely to attempt pregnancy. Their research demonstrates that, indeed, marital instability inhibits childbearing (Lillard and Waite 1993; Lillard, Panis and Upchurch 1994). What this research also shows is that the positive effect of children on marital stability remains and has been underestimated in models that do not incorporate the negative effect of marital instability on childbearing (Lillard and Waite 1993; Lillard, Panis and Upchurch 1994). They also report that larger family sizes (three or more children) may stress the marriage to the point of disruption, and that children have a stronger stabilizing effect on marriages among whites than among blacks (Lillard et al. 1994).

Sequential Unions and Births

Decreasing age at menarche/puberty, increasing rates of cohabitation and divorce, and greater acceptance of nonmarital childbearing and childrearing mean that many if not most individuals will experience more than one union, and a substantial proportion of parents will have children with more than one partner. Current estimates are that more than half of all first marriages will dissolve, and that approximately three-fourths of divorced persons will remarry. Since most young people cohabit before marriage, and the dissolution rate is higher for cohabitation than marriage (Bumpass and Sweet 1989), the chances of having more than one cohabiting or marital partner are even higher than the chances of marrying twice. And most of these disruptions and new unions occur during the childbearing years, increasing the chances of having children with more than one partner. These demographic conditions require us to consider continuities and discontinuities in unions and parenthood across the individual's life course.

There appear to be strong continuities over time in an individual's approach to and experience of relationships. Thornton (1990) finds that those who start dating early, start going steady earlier, have sex earlier, and have sex more and with more partners. Similar results are reported by Laumann et al (1994) for sexual experience prior to age 18 and experience in the late teen years. These individual differences may be related to the timing of physical maturation as well as other biological and family and social experiences. There is a large literature that links growing up in single parent families (and the instability of family relationships implied) to patterns of union formation and sexual behavior in adolescence and early adulthood. Furstenberg (1995) points out that the images of fathering brought into adolescence can have a strong influence on what happens when a man's partner becomes pregnant. Young disadvantaged men grow up with strong idealized values about what a father does but little consistent experience of being fathered; the result is unrealistic expectations for fatherhood that make commitment to the father role difficult.

An unknown factor in sexual continuities is abuse that men may have suffered as children, particularly sexual abuse. Researchers estimate that at least one in six boys suffer sexual abuse, and many hypothesize that such experiences can profoundly influence a boy's later sexual behaviors (see for example Allen, 1980, Becker et al 1986, Burgess et al 1987, as cited in National Research Council, 1993). Male children exposed to child abuse are more likely to become delinquents, and delinquents are more likely to be sexually active (see for example Widom 1989 as cited in National Research Council, 1993; Elliot and Morse, 1989; Synder and Sickmunc, 1995) One study found that adolescent males who had suffered sexual abuse were three times more likely to have caused a pregnancy compared to sexually active adolescent males who had not suffered sexual abuse (Nagy et al, 1994). Widom (1989) indicates that roughly one third of men exposed to abuse as a child will also initiate abuse with an intimate partner as an adolescent or adult. More extensive research has shown a link between child sexual abuse and pregnancy among adolescent females (Child Trends, Inc., 1995; Boyer D. and D. Fine, 1992.; Bulter and Burton, 1990; Rainey et al 1995; Roosa et al, 1995).

Ambert (1989) provides a compelling story of continuities in adult life, following couples who separated or divorced through subsequent marriages and divorces. When an initial respondent remarried, she obtained retrospective information on the new spouse's prior marriages (if any) and continued to interview the new spouse even if the second marriage dissolved. She concludes that the multiply-divorced were less stable persons than the once-divorced, but that their former spouses were not significantly different from the former spouses of the once-divorced. That is, multiple divorces do not seem to stem from choosing the wrong spouse or a problem spouse, but from one's own inability or unwillingness to make a commitment and work on a close relationships.

When individuals experience more than one marriage or union, and/or have children out of wedlock, early demographic events may influence subsequent events, or both events may be the result of life-course continuities. The first such sequence involves premarital births and the formation of subsequent unions, i.e., unions with someone other than the child's other parent. Most of the available data do not tell us whether cohabitations or marriages after a child's birth involve the two parents or not, but Bennett and his colleagues (1995) report that most unions occurring more than six months after the child's birth involve a new partner. Their data are, however, limited to residential unions (cohabitation and marriage). The ethnographic research tells much about the forces that undermine the continuation of nonresidential relationships between disadvantaged mothers and fathers, but doesn't provide any way to measure relationship stability and the formation of new unions.

Bennett and his colleagues (1995) demonstrate quite unequivocally -- using multiple data sets -- that nonmarital childbearing reduces the likelihood that a woman will marry during her childbearing years. (See also Cherlin 1980; Landale and Forste 1991; Lillard, Panis and Upchurch 1994.) Some of this effect appears to be due, however, to the increased likelihood that she will cohabit -- with the child's father or someone else. Landale and Forste (1991) did not find a similar positive effect, but a negative effect of nonmarital births on subsequent cohabitation, among U.S. women of Puerto Rican descent. Whether nonmarital fatherhood has similar effects for men's formation of subsequent unions remains to be seen; one might hypothesize that men's subsequent unions would not be influenced by nonmarital fatherhood, since they often have little contact with these children and -- as we have seen from analyses reported above -- may not even report them to interviewers.[12]

The effect of children from prior unions on women's remarriage appears to be relatively small, and limited to large numbers of children (Koo, Suchindran and Griffith 1984; Smock 1990; Suchindran, Koo and Griffith 1985). Koo and her colleagues (1984) reported that neither number nor age of youngest child influenced remarriage for black women, but this was because black women with more and younger children were less likely to divorce after separating from their husbands. Lillard, Panis and Upchurch (1994) used simultaneous hazard models to demonstrate a negative effect of children on remarriage of white women; the effect for black women was limited to children born out of wedlock. They claim that the endogeneity between childbearing and marriage could explain why studies based on independent models of childbearing and marriage have not found an effect of the first or second child on remarriage.

---

[12] Teachman, Polonko and Leigh (1987) did find a positive effect of premarital births on marriage among white men as well as white women, and also reports a positive effect for black men that increased into the mid-twenties. Their analysis was limited to high-school graduates, however, and -- as noted earlier -- was unable to distinguish marriages between the child's parents and to other partners.

We know virtually nothing about the effects of men's children from prior unions on their likelihood of remarriage. As for nonmarital births, we might expect that the effect of children would at the very least be smaller for men than for women, since they rarely live with children from a previous marriage, and often fail to provide for or spend time with them.

How do children from a prior union (including nonmarital or nonresident unions) influence fertility in a new union? Virtually all of the research speaking to this question deals with second marriages. In addition, most of the research on births in remarriage includes just half the picture -- we know about the woman's prior births but not those of her new husband.

Early research on remarriage fertility focused on the potential loss of exposure time to the risk of pregnancy. Investigators hypothesized that women who divorced would have fewer children because they had shorter marital durations. Remarriage allowed white women to "catch up" in completed fertility to women who remained in their first marriages (Thornton 1978; Kalwat 1983). Black women's fertility, on the other hand was substantially reduced by marital disruption, whether or not they remarried (Thornton 1978). Glick and Lin (1987) estimated that, among women who married twice, approximately one-third of their children were born in the second marriage.

These aggregate data suggest that a woman's parity at remarriage should negatively affect childbearing in the new marriage, but the findings are mixed. Bumpass (1984) and Loomis and Landale (1996) reported an inverse association between number of children and the probability of any birth in remarriage; Wineberg (1990)found an effect only at two or more children; and Griffith et al. (1985) reported no differences in birth probability by the woman's number of children at remarriage, except for the fact that childless black women were less likely to have a child than were black mothers who remarried. Loomis and Landale (1996) also failed to find a parity effect for black women. Discrepancies between studies may be due to differential information on the husband's prior marital status, age of the woman's youngest child at remarriage, or to differential selectivity into divorce and remarriage.

Using simultaneous hazard models to control for the mutual effects of marital disruption and fertility, Lillard and Waite (1993) found that the negative effects of a woman's children from prior marriages on childbearing in her second marriage could be accounted for by the effect of those children on the second marriage's stability. Lillard, Panis and Upchurch (1994), using a different sample, reported a net negative effect of children from prior marriages on conception in a second marriage. Models estimating the simultaneous effect for men's children and marital disruption would not converge (Waite 1997), which may be due to problems in men's reports of their union and birth histories.

Most remarried women are married to men who have also been married before, and many if not most of those men are likely to have had children. Levin and O'Hara (1978) demonstrated that the husband's prior marriage, but not wife's, reduced the wife's completed fertility. Only because remarried women were more likely to marry remarried men than are first-married women (56% versus 7%), did remarried women in their sample have smaller numbers of children than women who remained in first marriages. Bumpass (1984) and Griffith et al. (1985) also reported a negative effect of the husband's prior marriage on the likelihood of births in the woman's second marriage.

Two recent but unpublished studies (Haurin 1992; O'Keeffe 1988) were able to estimate directly the influence of a second husband's children on remarriage fertility. Part of the "catching up" of women in remarriages was explained by the finding that, among both men and women, the first birth to a remarriage occurred much sooner than to a first marriage (Haurin 1992). Effects of the partners' prior parities suggested a shared desire for two children, taking account prior children. Large numbers of children living outside the household were a negative influence on births. Haurin found that the man's children had a stronger negative effect on remarriage fertility than did the woman's children. O'Keeffe (1988) also reported a negative effect of the husband's children from a prior marriage and of his child support payments on his current wife's birth expectations, but found that the effect is explained by the husband's age. In addition, no effect of husband's children from a prior marriage was found for women who were in their first marriage and who already had a child (premaritally), were Catholic, had married before 1965, or who were older at marriage.

There are clearly forces encouraging fertility in second marriages, net of prior births, since children may be viewed as the important product of a loving marital relationship. Clarke and Gregson (1986) reported that 70 % of men requesting vasectomy reversals wanted to have child with new partner. But the degree of force also surely depends on whether each partner in the remarriage has already become a parent, the extent of their responsibilities to prior-born children, and perhaps their earlier experiences of parenting (Clark 1982). We are only beginning to identify the basic demographic parameters of fertility in second marriages, have virtually no information on fertility in sequential cohabiting or visiting unions, and know extremely little about how relationships with and responsibilities toward prior-born children influence fertility in subsequent unions. What is needed here is not only the perspective of men, but also information about the marital and parenting experience of previous as well as current partners.

We noted earlier that children appear to have a stabilizing influence on marriages, at least during the early years of a child's life. But what about children from a prior union? Such children do not represent a shared investment in the marital relationship, and may detract from time and attention available for a new partner. We alluded to this effect in citing the work of Lillard and Waite (1993) who found that the negative effect of children from a prior marriage on fertility in a remarriage was accounted for by their negative effect on remarriage stability.

Most of the research on the stability of stepfamily marriages does not distinguish between children born to unmarried mothers who subsequently married and children born in previous marriages. Several studies have suggested that premarital births increased the likelihood of subsequent marital dissolution, though it is not clear if those marriages were to someone other than the child's father (Billy, Landale and McLaughlin 1986; Lillard and Waite 1993). In any case, effects of premarital births appear to be absent or weaker for black women than for white women (Billy et al. 1986; Waite and Lillard 1991). In more recent data, Bumpass et al. (1991) report no significant effect of premarital births on marital disruption. They suggest that having a child out of wedlock no longer creates the stress of social stigma for a new marriage, and/or that a general decline in marriage rates has made those marriages that do include such children more selective of committed, high-quality relationships than in the past.

Nonmarital births may occur to divorced women as well as to those who have never married, but the evidence for negative effects on second marriages is mixed. Suchindran, Koo and Griffith (1985) found no effect for white women, but an increase in disruptions for black women who had children between marriages. Wineberg (1992) reported higher disruption rates for white women who had an intermarital birth, at all durations of second marriages; for black women, effects were negative at short marital durations, positive at longer durations. In a second study, however, he found no net effect of intermarital births on disruption controlling for the woman's total number of children at remarriage (Wineberg 1992).

Children from previous unions have also been shown to increase the likelihood of divorce in women's second marriages (Lillard and Waite 1993; Wineberg 1992). Such children are more likely to have ongoing relationships with their nonresident father, possibly creating conflict between the stepfather and biological mother. These studies do not tell us, however, about the stepfather's children from prior marriages who may also be a source of stress and conflict in the remarriage.

Data Needs

We identified in the above review needs for data on: (1) relationships -- including demographic and interactive dimensions, and reported from both partners' points of views,

(2) gender scripts, including gendered meanings of sexual behavior, contraception, and pregnancy, and (3) linked union and birth histories of partners, both past and present.

Relationships. We identified several dimensions of nonmarital and marital relationships that influence one or another of the behaviors leading to parenthood. We need data to provide a comprehensive view of those relationships: duration, coresidence, commitment, communication, emotional intimacy, power/dominance, coercion/violence, and social embeddedness. We especially need to carefully distinguish cohabiters from other nonmarital partners, in all future research on family formation and fertility, male or female. Recent analyses suggest that cohabitation is, for most, a stage in the marriage process; to disentangle "courtship" cohabitation from "alternative lifestyle" cohabitation, we need to have direct data on relationship dimensions, including plans for marriage.

We also need information from both parties to the relationship, in order to understand gendered views of relationships and childbearing and in order to construct relationship indicators that represent the couple rather than the individual. Relationship data should be longitudinal so that we can disentangle self-selection into relationships from relationship effects on childbearing. We need to pay particular attention to gendered power in relationships, including coercion or violence and links to gender-traditional views of men and women.

Gender Scripts and Gendered Meanings. We need information on gender scripts in sex, contraceptive use, pregnancy, men's as well as women's motivations to prevent or achieve pregnancy within and across relationships, and both partners' responses to pregnancies that occur. Both partners' views of sexual and contraceptive responsibility, attributes of contraceptive methods (including sterilization), and abortion are needed; in nonmarital, particularly visiting unions, we need information on both partners' views of adoption, marriage, and childrearing responsibilities. Measures of extended family responses and views of alternative pregnancy resolution decisions may be valuable when the prospective parents are relatively young or economically dependent. In all types of unions, we need to know whether men's views of the tie between the union and children are different than those of women, and whether variation in such views is associated with male fertility or union formation and dissolution. Since stepfamily experience is increasing, we need to know how men and women view the other partner's children in relation to their own childbearing desires and goals.

Individual and Shared History. We need better "fathering histories". Because the vast majority of women reside with their children, fertility histories provide a closer approximation to "mothering history" than is the case for men. Almost no data exist on the existence of or contact with stepchildren (including cohabiting partner's children) from a prior union.

When a union forms, we need to know about both partners' union and birth histories in order to understand the force of individual life-course continuities in comparison to the influence of partners' lives and actions. We usually have this for women but not for men. Some of this information can be provided retrospectively from individuals, but we also need to follow both partners from a dissolved union into new unions and births. Ideally, we would like union histories to include visiting as well as cohabiting and marital unions, but the latter two are most important.

Existing Data on Men's Unions and Births

Past studies have included very little information about nonmarital partners and relationships; the individual was the unit of analysis and we attempted to explain fertility-related behavior in terms of her/his individual characteristics and experiences. Previous cycles of the National Survey of Family Growth (NSFG) collected some demographic information about current male marital partners and in some cases proxy reports of partner's attitudes towards pregnancy. NSFG collected current cohabitation in Cycle 3 (1982), partial cohabitation histories in Cycle 4 (1988), and complete cohabitation histories in Cycle 5 (1995), but only for women. Earlier versions of the National Survey of Adolescent Males (NSAM) asked some questions about partners, the numbers of sexual partnerships, and relationships with selected partners. The Kantner and Zelnik studies collected information about relationships to first sexual partner. The National Longitudinal Study of Youth (NLSY-79) has added cohabitation histories to prior data on births and marriages, but has no partner information relating to first or more recent sexual activity. Selected studies -- especially smaller-scale studies focused on psychosocial aspects of sexuality and pregnancy -- have asked questions about communication with partners (e.g., did you discuss birth control?). We have several couple data sets from regional samples, many with panel data to assess influence of partners' childbearing attitudes or plans on contraceptive behavior, pregnancy and birth. But they have limited information on relationship dimensions. Almost no studies have attempted to sample unmarried relationships rather than individuals.

Recent and current data collection efforts have moved toward a much better coverage of nonmarital relationships and relationship issues. To wit:

National Survey of Men, 1991. Although this study did not have a strong focus on fertility issues, it was one of the first to relate pregnancy to specific sexual relationships. Thus, for up to 8 non-marital relationships that lasted 30 days or more since January 1990, the study collected information on pregnancies that occurred within each relationship, and the planning status and outcome of each (up to 3). It also collected information about the partners' demographic characteristics, and about sexual and contraceptive behavior in the relationship. The study cast a wide net in looking at relationships, including nonsexual relationships, nonmarital sexual relationships, and marriages and cohabitations. Some studies are underway using these data, and they may provide a valuable resource for understanding links between relationship characteristics and fertility risk. These data are unique because they focus on an older population of men that has received insufficient study in the past.

National Longitudinal Study of Youth, 1997: collects more information on dating, sexual behavior, contraception. In addition, for each live birth the characteristics of the other biological parent (other than the respondent, who may be male or female) are ascertained. Characteristics include race, age, school enrollment status, work status, schooling level as of the time the pregnancy began. Also, the status of the relationship at the time the pregnancy began is asked: had they had sex only once or twice, were they in an on-going sexual relationship, or "other". Information on sexual or dating partners is collected only if a birth occurs or if the partners marry or cohabit. Thus, the 97 NLSY panel provides an improved information base for describing the partnerships into which children are born, but not for relating these fertile relationships to all relationships. The characteristics and dynamics of visiting relationships cannot be related to fertility outcomes. This is a major drawback. NLSY 97 is likely to provide extremely useful longitudinal data reflecting the social and economic outcomes of more committed types of relationships, but will be unable to say anything about the processes by which these more committed relationships evolve, or fail to evolve, from less committed ones, and about the processes associated with out-of-wedlock births that do not involve co-resident parents.

The National Longitudinal Study of Adolescent Health (1994-96): This will be an extremely powerful data source for studying the development of adolescent romantic relationships. Data are collected from males and females, and information is collected on "romantic" relationships (defined both subjectively and behaviorally) during a recent period. The design of the study will enable researchers to relate many characteristics of these relationships to the sexual behavior, contraception, pregnancy and pregnancy outcomes that may or may not occur within them. The strength of the study is the quantity of information about the social and community contexts within which relationships develop: what happens within relationships can be related to their embeddedness in social networks, partner characteristics, the values of partners' peers and families, community norms, and more. Another strength is the ability to look, in many cases, at relationships from both partner's points of view. The drawback is that at present there are no plans to follow this sample beyond the one-year followup period originally funded, limiting the number of fertility events that will be observed in this young sample. Also, questions about pregnancies caused were not asked of young men because it was believed the responses would be downwardly biased.

National Survey of Family Growth, Cycle 5 (1995): Will collect far more information about the male partners of women aged 15-44 than previous cycles have done. In addition to virtually all marital and cohabitational partners, information on sexual partners since January 1991 is collected. Information includes the nature of the relationship, dates of sexual intercourse, and demographic characteristics. It is not clear how well one can link this to the woman's pregnancy/fertility history: although no direct question appears to link pregnancies to the partner that caused them, the father's age at the time of pregnancy is ascertained, and a match based on the timing of pregnancy, the timing of relationships, and father's age might be feasible. These data are supplemented by proxy reports of how the male partner felt about the pregnancy, pregnancy outcome, and current information about child support and living arrangements. Further, there are extensive history data for the female respondent allowing researchers to relate her exposure to disrupted family patterns during her development along with experience in educational and work domains to her relationship patterns and fertility within various types of relationships. The retrospective data provide a backwards view of patterns of relationships over time; since the survey is a one-time cross-sectional study only those aspects of relationships than can be expected to be reliably recalled and reported by a female informant can reasonably be examined. This study provides a valuable source of data on relationships from the female viewpoint, and on the characteristics of men and relationships that produce pregnancies and births. Expansion of the survey to include men would yield little in terms of describing births, but might yield something in terms of the knowledge we have of how men participate in relationships that lead to pregnancy and birth.

National Survey of Adolescent Males, 1995 new cohort: includes richer partner-specific data than previous rounds. For the most recent and next most recent partner, information on how met, age, how long known before intercourse, sex, contraception and pregnancy, and power and conflict in the relationship. There are subsets of these questions for first partner ever and up to additional 4 partners in the past 12 months. None of the questions appear to address affect, commitment, expectations about relationship duration or marriage, exclusivity. With respect to pregnancies, captures age of partner, abortion preferences of both partners, outcomes. Followup has similar types of data, plus longitudinal record back to 1988. There is much that these data can contribute to looking at relationship-specific behavior from the male viewpoint; also there are some important holes in the data when looking at the factors that probably determine fertility events and outcomes within relationships. With these data it will be possible to document some of the factors, but not all, that contribute to across-relationship variability in behavior.

National Survey of Families and Households, 1988-93: includes complete union and fertility histories for primary respondents, both male and female, though problems have been found with some men's reports of birth and union histories. NSFH has little information on nonresident unions. Couple data from NSFH-1 are not completely parallel in providing information on each partner's children, and are limited to current partners. Questions about the first husband/wife included whether he/she had been married before and/or had children at the time of the union. Union and birth transitions between waves is quite detailed, but again there is limited information on nonresident unions. Both waves include the full range of relationship indicators for resident unions, both time periods.

Attitudes toward union formation and dissolution (both normative and personal) can be used to identify selection processes into and out of unions and into parenthood. Dating and sexual experience, early family formation events are available for the older focal children (age 13-18 in 1988, 18-23 in 1993), and the next younger group of focal children provides information on dating and sexual experience at the second wave.

Year 2000 Survey of Income and Program Participation. Past SIPP panels have collected a complete marital history but accept proxy reports from women to do this. They also asked a question on number of children ever fathered, presumably also allowing proxy answers. Information about nonmarital partners and about fertility-related behaviors and intentions is not collected. The longitudinal design and collection of data for all household members (even if they subsequently leave the household) gives some (very limited) leverage for linking fertility to relationships.

Survey of Program Dynamics SPD. 1992-93 SIPP panel follow-up; individuals were 15 and older in 1992-93. No questions on men's contraception or childbearing (or relationships) are planned but could be added to future rounds.

Youth Risk Behavior Survey: may be useful for monitoring sexual behavior of in-school youth in very rough terms; increasing requirements for active parental consent may bias estimates of trends. The survey includes a question on how many times pregnant/caused a pregnancy.

Vital statistics. Identifying who the father is on birth records is probably improving, but important biases may persist. Also, the records contain no history, and relationship information is at best limited to marital status of mother. Efforts here should focus on improving measurement of what the relationship is between child's mother and father (which may not be the same as marital status), and perhaps adding a question on number of births previously fathered by father.

Recommendations

Improving Data

1. Collect data on marital and nonmarital relationships -- and their connection with fertility -- from both the male and female perspectives. Wherever possible, studies should gather information from both parties to the relationship, so that relationship indicators can be constructed based on couple- rather than individual-level data.

2. Conduct longitudinal studies that follow the process of fertility and family formation across the life course. Studies should follow both men and women over time to study the development of nonmarital, cohabiting, and marital relationships, to assess the characteristics and dynamics of relationships, and to link these characteristics to fertility and fertility-related behavior. Such studies would allow us to link adult outcomes (about which we know little) with adolescent attitudes and behaviors (about which we know a great deal). It would also allow us to study self-selection into and out of relationships and help to distinguish such selection effects from relationship effects on fertility. Life experiences such as child or sexual abuse and continuities in personal motivations, abilities, and other characteristics are likely to have persisting effects across the life course; we should study how these interact with relationship formation, characteristics and dynamics to influence fertility.

3. Improve the availability of comprehensive data on the dimensions of marital and nonmarital relationships, including duration, coresidence, commitment, communication, emotional intimacy, power/dominance, coercion/violence, and social embeddedness.

4. Develop data on fertility and fertility-related behavior that distinguish cohabiting and other nonmarital partnerships, and that allow differentiation of cohabiting relationships that are leading to marriage and those that are likely to persist without marriage.

5. Develop improved (unbiased) information about the men who are responsible for pregnancies and who father births in different types of relationships, and particularly about those who are not married to the baby's mother. Efforts should be made to obtain this information through birth and administrative records as well as through parent histories.

6. Collect fertility and union history data for both parties to sexual unions, both past and present. This will produce better "fathering histories," that is, better histories of men's experience living with and interacting with their children and their partners' children, linked to their histories of union formation and dissolution.

7. Collect information that will allow us to determine the nature and timing of marriage and cohabitation with the father in relation to pregnancy and birth.

8. Improve data on the motivations, attitudes and intentions relating to relationships and childbearing among men and women in all types of relationships. Include gender scripts relating to sex, contraception, and pregnancy resolution; motivations to prevent or to achieve pregnancy across and within relationships and responses to pregnancies that occur; views of sexual and contraceptive responsibility and the attributes of contraceptive methods and abortion; views of marriage, adoption and single parenthood among unmarried partners; and views of the link between the union and children or parenting roles. Attitudes toward children from the partner's former unions in relation to each partner's childbearing desires and goals should be included.

9. Thoroughly exploit the potential of newly collected data for analyzing the connections between relationship characteristics and dynamics and male fertility. Accomplish goals for improving data by building on existing data collection efforts (e.g., NLSY, NELS, AdHealth) if possible, and by new data collection efforts where necessary.

Areas of Needed Research

1. Study links between gender-traditional views of men and women and their sexual relationships, gendered power in relationships (including coercion and violence), and the processes leading to union formation/dissolution and fertility.

2. Study the influence of all dimensions of relationships on sexual behavior, contraception, pregnancy, and pregnancy resolution.

3. Study the effect of pregnancy and birth on the continuation and nature of relationships between unmarried partners, and the factors which influence relationship outcomes.

4. Study how the experience of parenthood and the costs and benefits it entails depend on the relationship context in which pregnancy, birth and parenthood occur.

5. In studies of sexual and contraceptive behavior within relationships, particularly nonmarital relationships, develop models that take account of the multiple risks and benefits of sexual behavior, including disease, unintended pregnancy, wanted birth, and relationship commitment.

References

Allen, D.M. "Young male prostitutes: A Psychosocial Study," *Archives of Sexual Behavior*, 9:399-426.

Akerlof, George A., Janet L. Yellen, and Michael L. Katz. 1996. "An Analysis of Out-of-Wedlock Childbearing in the United States." *The Quarterly Journal of Economics* 111(2): 277-317.

Ambert, Anne-Marie. 1989. *Ex-Spouses and New Spouses: A Study of Relationships.* Greenwich, CT: JAI Press.

American Health Consultants. 1994. "Past Sexual Abuse Can Lead to Contraceptive Noncompliance." *Contraceptive Technology Update* vol. 15 no.10, October 1994.

Anderson, Elijah. 1994. "Sex Codes Among Inner-City Youth" pp. 1-36 in Garrison, Jayne, Mark D. Smith and Douglas J. Besharov (eds.), *Sexuality, Poverty, and the Inner City. [Sexuality and American Social Policy*, Vol 2.] Menlo Park, CA: Kaiser Family Foundation.

Axinn, William G., and Arland Thornton. 1992. "The Relationship Between Cohabitation and Divorce: Selectivity or Causal Influence?" *Demography* 29:357-374.

Bachrach, C. 1987. "Cohabitation and Reproductive Behavior in the U.S." *Demography* 24(4): 623-637.

Bachrach, Christine A. 1996. "The Changing Circumstances of Marriage and Fertility in the U.S." Paper presented at "The Effect of Welfare on the Family: What do we Know? What do we Need to Know?" National Academy of Sciences, Washington DC, May 2-3.

Bachu, Amara. 1991. "Fertility of American Women: June 1990". *Current Population Reports*, Series P-20, No. 454. Washington, DC: U.S. Bureau of the Census.

Beach, Lee Roy, Fred C. Campbell, and Brenda D. Townes. 1979."Subjective Expected Utility and the Prediction of Birth-Planning Decisions." *Organizational Behavior and Human Performance* 24:18-28.

Beach, Lee Roy, Alexandra Hope, Brenda D. Townes, and Fred L. Campbell. 1982. "The Expectation-Threshold Model of Reproductive Decision Making." *Population and Environment* 5 (Summer):95-108.

Becker, J.V, et al. 1986. "Characteristics of Adolescent Incest Sexual Perpetrators: Preliminary Findings," *Journal of Family Violence*. 1(1):85-97.

Beckman, Linda J. 1984. "Husbands' and Wives' Relative Influence on Fertility Decisions and Outcomes." *Population and Environment* 7:182-197.

Beckman, Linda J., Rhonda Aizenberg, Alan B. Forsythe, and Tom Day.1983. "A Theoretical Analysis of Antecedents of Young Couples' Fertility Decisions." *Demography* 20:519-533.

Bennett, Neil G., David E. Bloom, and Cynthia K. Miller. 1995. "The Influence of Nonmarital Childbearing on the Formation of First Marriages." *Demography* 32:47-62.

Billy, John O.G., Nancy S. Landale, and Steven D. McLaughlin. 1986. "The Effect of Marital Status at First Birth on Marital Dissolution Among Adolescent Mothers." *Demography* 23:329-349.

Billy, John O. G., Koray Tanfer, William R. Grady, and Daniel H. Klepinger. 1993. "The Sexual Behavior of Men in the United States". *Family Planning Perspectives* 25:52-60.

Boyer D. And D. Fine, 1992. "Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment" *Family Planning Perspectives*, vol. 24, no. 1:4-11, January/February 1992.

Brown, Sara S., and Leon Eisenberg (eds.). 1995. *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*. [Committee on Unintended Pregnancy, Institute of Medicine] Washington, D.C.: National Academy Press.

Bumpass, Larry L. 1984. "Some Characteristics of Children's Second Families." *American Journal of Sociology* 90:608-623.

Bumpass, Larry L., and R. Kelly Raley. 1995. "Redefining Single-Parent Families: Cohabitation and Changing Family Reality." *Demography* 32: 97-109.

Bumpass, Larry L., and James A. Sweet. 1989. "National Estimates of Cohabitation." *Demography* 26:615-625.

Bumpass, Larry L., and Charles F. Westoff. 1970. *The Later Years of Childbearing*. Princeton, New Jersey: Princeton University Press.

Bumpass, Larry L., Teresa Castro Martin, and James A. Sweet. 1991. "The Impact of Family Background and Early Marital Factors on Marital Disruption." *Journal of Family Issues* 12:22-42.

Burgess, A, C. Hartman, and A. McCormack. 1987. "Abused to Abuser: Antecedents of Socially Deviant Behaviors." *American Journal of Orthopsychiatry* 144:1431-1436.

Burton, Linda M. 1995. "Family Structure and Nonmarital Fertility: Perspectives from Ethnographic Research." Pp. 147-165 in Department of Health and Human Services (DHHS). 1995. *Report to Congress on Out-of-Wedlock Childbearing*. Hyattsville MD: Public Health Service.

Butler, Janice R., and Linda M. Burton. 1990. "Rethinking Teenage Childbearing: Is Sexual Abuse a Missing Link." *Family Relations*, vol 39. January 1990.

Call, Vaughn, Susan Sprecher, and Pepper Schwartz. 1995. "The Incidence and Frequency of Marital Sex in a National Sample." *Journal of Marriage and the Family* 57:639-652.

Cherlin, A. 1980. "Postponing Marriage: The Influence of Young Women!s Work Expectations." *Journal of Marriage and the Family* 42:355-365.

Clark, D. 1982. "Restarting a family: having children in second marriage." International Journal of Sociology and Social Policy 2:55-68.

Clark, M. P., and G. Swicegood. 1982. "Husband or wife? A multivariate analysis of decision making for voluntary sterilization." *Journal of Family Issues* 3:341-360.

Clarkberg, Marin, Ross M. Stolzenberg, and Linda J. Waite. 1995. "Attitudes, Values, and Entrance into Cohabitational versus Marital Unions." *Social Forces* 74:609-634.

Clarke, Linda, and Sue Gregson. 1986. "Who Has a Vasectomy Reversal?" *Journal of Biosocial Science* 18:253-259.

Czajka, J.L. 1979. Husband-wife Agreement on Desired Family Size in the United States. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, Michigan.

Davidson, A.R., and L.R. Beach. 1981. "Error Patterns in the Prediction of Fertility Behavior." *Journal of Applied Social Psychology* 11:475-488.

Department of Health and Human Services (DHHS). 1995. *Report to Congress on Out-of-Wedlock Childbearing*. Hyattsville MD: Public Health Service.

Edwards, Sharon R. 1994. "The Role of Men in Contraceptive Decision-Making: Current Knowledge and Future Implications." *Family Planning Perspectives* 26(2): 77-82 (March/April).

Elliott, Delbert S. and Barbara J. Morse. 1989. "Delinquency and Drug Use as Risk Factors in Teenage Sexual Activity." *Youth and Society* 21.

Erickson, Pamela and Andrea J. Rapkin. 1991. "Unwanted Sexual Experience Among Middle and High School Youth." *Journal of Adolescent Health* 12:319-325.

Forrest, Jacqueline D. and Jennifer J. Frost. 1996. "The Family Planning Attitudes and Experiences of Low-Income Women". *Family Planning Perspectives* 28(5):246-255 (Nov/Dec).

Freedman, R., D.S. Freedman, and A.D. Thornton. 1980. "Changes in Fertility Expectations and Preferences Between 1962 and Thayer Relation to Final Parity." *Demography* 17:365-378.

Fried, E.S.P., and JR. Udry. 1979. "Wives' and Husbands' Expected Costs and Benefits of Childbearing as Predictors of Pregnancy." *Social Biology* 26:265-274.

Furstenberg, Frank F. 1995. "Fathering in the Inner City". Pp. 119-147 in William Marsiglio (ed.), *Fatherhood: Contemporary Theory, Research and Social Policy*. Thousand Oaks: Sage Publications.

Gelles, Richard J. and Murry A. Straus. 1988. *Intimate Violence: the Causes and Consequences of Abuse in the American Family*. New York: Simon and Schuster Inc.

Glick, Paul, and S. L. Lin. 1987. "Remarriage after Divorce: Recent Changes and Demographic Variations." *Sociological Perspectives* 30:162-179.

Goldscheider, F.K., and Waite, L.J. 1986. "Sex Differences in the Entry into Marriage." *American Journal of Sociology* 92:91-109.

Griffith, Janet D., Helen P. Koo, and C. M. Suchindran. 1985. "Childbearing and Family in Remarriage." *Demography* 22:73-88.

Grinstead, Olga A., Bonnie Faigeles, Diane Binson and Rani Eversley. 1993. "Data from the National AIDS Behavior Surveys: I. Sexual Risk for Human Immunodeficiency Virus Infection Among Women in High-Risk Cities." *Family Planning Perspectives* 25(6):252-256.

Haurin, R. J. 1992. The Determinants of Fertility in Remarriage: An Analysis of White American Experience. Unpublished Doctoral Dissertation, Ohio State University. Ann Arbor, Michigan, University Microfilms International.

Heaton, Tim B. 1990. "Marital Stability Throughout the Child-Rearing Years." *Demography* 27:55-63.

Kalwat, J.S. 1983. "Divorce, remarriage, and childbearing: a study of fertility differences between women in first and second marriages." Princeton, N.J, Princeton University. Publication Order Number DA8316800, University Microfilms International.

Kobrin, Frances E. and Waite Linda J. 1984. "Effects of Childhood Family Structure on the Transition to Marriage." *Journal of Marriage and the Family* 46:807-816.

Koo, Helen P., C.M. Suchindran, and Janet D. Griffith. 1984. "The Effects of Children on Divorce and Re-marriage: A Multivariate Analysis of Life Table Probabilities." *Population Studies* 38:451-471.

Koss, Mary P. and Sarah L. Cook. 1993. "Facing the Facts: Date and Acquaintance Rape are Significant Problems of Women," in *Current Controversies on Family Violence.* Gelles, Richard J. and Donileen R. Loseke (eds.) Newbury Park: Sage Publications.

Ku, Leighton, Freya Sonenstein, and Joseph H. Pleck. 1994. "The Dynamics of Young Men's Condom Use During and Across Relationships." *Family Planning Perspectives* 26(6): 246-251 (Nov/Dec).

Landale, N.S. and Forste, R. 1991. "Patterns of Entry into Cohabitation and Marriage among Mainland Puerto Rican Women." *Demography*,28:587-607.

Laumann, Edward, John H. Gagnon, Robert T. Michael, and Stuart Michaels. 1994. *The Social Organization of Sexuality.* Chicago, IL: University of Chicago Press.

Levin, Martin L., and O'Hara, C. Joseph. 1978. "The Impact of Marital History of Current Husband on the Fertility of Remarried White Women in the United States." *Journal of Marriage and the Family* 40:95-102.

Lillard, Lee A., and Linda J. Waite. 1993. "A Joint Model of Marital Childbearing and Marital Disruption." *Demography* 30:653-681.

Lillard, Lee A., Constantijn W.A. Pais, and Dawn M. Upchurch. 1994. "Interdependencies Over the Life Course: Women's Fertility, Marital, and Educational Experiences." Working Paper 94-17, Labor and Population Program, The Rand Corporation, Santa Monica, CA.

Loomis, Laura Spencer, and Nancy S. Landale. 1994. "Nonmarital Cohabitation and Childbearing Among Black and White American Women." *Journal of Marriage and the Family* 56:949-962.

Manning, Wendy D. 1992. "The Linkage between Premarital Fertility and Cohabitation in the U.S." National Survey of Families and Households Working Paper 52, Center for Demography and Ecology, University of Wisconsin-Madison, Madison WI.

Manning, Wendy D. 1993. "Marriage and Cohabitation Following Premarital Conception." *Journal of Marriage and the Family* 55:839-850.

Manning, Wendy D., and Nancy S. Landale. 1996. "Racial and Ethnic Differences in the Role of Cohabitation in Premarital Childbearing." *Journal of Marriage and the Family* 58:63-77.

Manning, Wendy D., and Pamela J. Smock. 1995. "Why Marry? Race and the Transition to Marriage among Cohabitors." *Demography* 32:509-520.

Marsiglio, William. 1988. "Adolescent Male Sexuality and Heterosexual Masculinity". *Journal of Adolescent Research* 3 (3-4):285-303.

Marsiglio, William. 1991. "Male Procreative Consciousness and Responsibility: A Conceptual Analysis and Research Agenda". *Journal of Family Issues* 12(3): 268-290. (Sept)

Marsiglio, William. 1993. "Adolescent Males' Orientation Toward Paternity and Contraception." *Family Planning Perspectives* 25(1):22-31.

Miller, Warren B. 1986. "Why Some Women Fail to Use Their Contraceptive Method: A Psychological Investigation." *Family Planning Alternatives* 18:27-32.

Miller, Warren B., and David J. Pasta. 1995. "Behavioral Intentions: Which Ones Prec Fertility Behavior in Married Couples?" *Journal of Applied Social Psychology* 25:530-555.

Miller, Warren B., and David J. Pasta. 1996a. "Couple Disagreement: Effects on the Formation and Implementation of Fertility Decisions." *Personal Relationships* 3:307-336.

Miller, Warren B., and David J. Pasta. 1996b. "The Relative Influence of Husband and Wives on the Choice and Use of Oral Contraception, a Diaphragm, and Condoms." *Journal of Applied Social Psychology* 26:1749-1774.

Miller, Warren B., Rochelle N. Shain, and David J. Pasta. 1991. "Tubal Sterilization or Vasectomy: How Do Married Couples Make the Choice?" *Fertility and Sterility* 56:278-284.

Moore, Kristin A. et al. 1989. "Nonvoluntary Sexual Activity Among Adolescents." *Family Planning Perspectives* 21.

Moore, Kristin A., Brent C. Miller, Dana Glei, and Donna Ruane Morrison. 1995. *Adolescent Sex, Contraception, and Childbearing: A Review of Recent Research.* Washington, DC: Child Trends, Inc.

Morgan, S. Philip. 1985. "Individual and Couple Intentions for More Children: A Research Note." *Demography* 22:125-132.

Morgan, S. Philip, Kate Offutt and Ronald R. Rindfuss. 1995. "Education, Marital Status, and the Changing Age Pattern of American Fertility". Paper presented at the Annual Meeting of the Population Association of America, San Francisco.

Anderson, Kristin A., et al. 1989. "Nonvoluntary Sexual Activity Among Adolescents." *Family Planning Perspectives* 21.

Muhsam, H.V., and C.V. Kiser. 1956. "The Number of Children Desired at the Time of Marriage." *Milbank Memorial Fund Quarterly* 34:287-312.

Nagy, Stephen et al. 1994. "A Comparison of Risky Health Behaviors of Sexually Active, Sexually Abused and Abstaining Adolescents." *Pediatrics* 93.

National Center on Child Abuse and Neglect. 1995. "Domestic Violence and Child Abuse." Draft Monograph (September).

National Research Council. 1993. *Understanding Child Abuse and Neglect.* Washington, DC: National Academy Press.

National Research Council. 1996. *Understanding Violence Against Women.* Crowell, Nancy A. and Burgess, Ann W. (eds). Washington, DC: National Academy Press.

Nock, Steven L. 1995. "A Comparison of Marriages and Cohabiting Relationships." *Journal of Family Issues* 16:53-76.

O'Connell, Martin and Carolyn C. Rogers. 1984. "Out-of-Wedlock Births, Premarital Pregnancies and Their Effect on Family Formation and Dissolution". *Family Planning Perspectives* 16(4):157-162 (Jul/Aug).

O'Keeffe, J.E. 1988. Starting a Second Family: The Effect of Children From a Husband's Prior Marriage and the Payment of Child Support on Birth Expectations in Women's First and Second Marriages. Unpublished Doctoral Dissertation, University of California-Los Angeles. Ann Arbor, Michigan, University Microfilms International.

Pagnini, Deanna, and Ronald. R. Rindfuss. 1993. "The Divorce of Marriage and Childbearing: Changing Attitudes and Behavior in the United States." *Population and Development Review* 19(2):331-347.

Peterson, John L., Joseph A. Cataria, Margaret Dolcini and Bonnie Faigeles, 1993. "Data from the National AIDS Behavior Surveys: II. Multiple Sexual Partners Among Hispanics in High-Risk Cities." *Family Planning Perspectives* 25(6):257-262.

Pleck, Joseph H., Freya L. Sonenstein, and Scott O. Swain. 1988. "Adolescent Males' Sexual Behavior and Contraceptive Use: Implications for Male Responsibility." *Journal of Adolescent Research* 3(3-4): 275-284.

Pleck, Joseph H., Freya L. Sonenstein, and Leighton Ku. 1993. "Masculinity Ideology: Its Impact on Adolescent Heterosexual Relationships." *Journal of Social Issues* 49(3): 11-30.

David Y. Rainey et al. 1995. "Are Adolescents Who Report Prior Sexual Abuse at Higher Risk for Pregnancy?" *Child Abuse and Neglect,* Vol. 19, no 10.

Rindfuss, R., and A. Vanden Heuvel. 1990. "Cohabitation: A Precursor to Marriage or an Alternative to Being Single?" *Population and Development Review* 16:703-26.

Mark W. Roosa, et al. 1995. Relationship of Childhood Sexual Victimization to Teenage Pregnancy and Sexually Transmitted Diseases: Final Report submitted to Arizona Disease Control Research Commission.

Sabogal, Fabio, Bonnie Faigeles and Joseph A. Cataria 1993. "Data from the National AIDS Behavior Surveys: III. Multiple Sexual Partners Among Blacks in High-Risk Cities." *Family Planning Perspectives* 25(6):263-267.

Santelli, John S., Anthony C. Kouzis, Donald R. Hoover, Michele Polacsek, LaWanda G. Burwell and David D. Celentano. 1996. "Stage of Behavior Change for Condom Use: The Influence of Partner Type, Relationship and Pregnancy Factors." *Family Planning Perspectives* 28(3):101-107.

Schechter, S. And Ganley, A. 1995. *Domestic Violence: a National Curriculum for Family Preservation Practitioners.* San Francisco: Family Violence Prevention Fund.

Schoen, Robert, Young J. Kim, Constance A. Nathanson, Jason Fields, and Nan M. Astone. 1996. "Why do Americans want children?" Hopkins Population Center Papers on Population WP 96-09. Hopkins Population Center, August.

Severy, Lawrence J., and Starr E. Silver. 1993. "Two Reasonable People: Joint Decision making in Contraceptive Choice and Use." Pp. 207-227 in Lawrence J. Severy (ed.), *Advances in Population: Psychological Perspectives*, vol. 1. London: Jessica Kingsley Publishers.

Stephen A. Small and Donell Kerns. 1993. "Unwanted Sexual Activity Among Peers During Early and Middle Adolescence: Incidence and Risk Factors." *Journal of Marriage and the Family* 55:941-952.

Smith, Herbert L., S. Philip Morgan, and Tanya Koropeckyj-Cox. 1996. "A Decomposition of Trends in the Nonmarital Fertility Ratios of Blacks and Whites in the United States, 1960-1992". *Demography* 33(2): 141-151.

Smock, Pamela J. 1990. "Remarriage Patterns of Black and White Women: Reassessing the Role of Educational Attainment." *Demography* 27: 467-471.

Sobel, Michael E., and Gerhard Arminger. 1992. "Modeling Household Fertility Decisions: A Nonlinear Simultaneous Probit Model." *Journal of the American Statistical Association* 87:38-47.

Sonenstein, Freya, Joseph H. Pleck and Leighton Ku. 1992. "Cost and Opportunity Factors Associated with Pregnancy Risk Among Adolescent Males." Presented at the annual meeting of the Population Association of America.

Stephen, Elizabeth Hervey, Suzanne Ryan, and Reinaldo Granja Gregori. 1995. "Order Amidst Disorder: Marital Transitions of Young Adults." *Journal of Divorce and Remarriage* 23:1-21.

Stern, Patricia Lynn. 1994. "Teen Sexuality Among Inner-City White Youth: Becoming an Adult in Milton" pp. 37-76 in Garrison, Jayne, Mark D. Smith and Douglas J. Besharov (eds), *Sexuality, Poverty, and the Inner City.* [*Sexuality and American Social Policy*, Vol 2.] Menlo Park, CA: Kaiser Family Foundation.

Straus Murray A. And Richard J. Gelles. 1990. *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families.* New Brunswick: Transaction Publishers.

Snyder, Howard, N. And Melissa Sickmund. 1995. *Juvenile Offenders and Victims: A National Report.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

Suchindran, C. M., Helen P. Koo, and Janet D. Griffith. 1985. "The Effects of Post-marital Childbearing on Divorce and Remarriage: An Application of Hazards Models with Time-dependent Covariates." *Population Studies* 39:471-486.

Tanfer, Koray, William R. Grady, Daniel H. Klepinger and John O.G. Billy. 1993. "Condom Use Among U.S. Men, 1991". *Family Planning Perspectives* 25:61-66.

Teachman, J.D., Polonko, K.A., and Leigh, G.K. 1987. "Marital Timing: Race and Sex Comparisons." *Social Forces* 66:239-268.

Thomson, Elizabeth. 1983. "Individual and Couple Utility of Children." *Demography* 20:507-518.

Thomson, Elizabeth. 1989. "Dyadic Models of Contraceptive Choice, 1957 and 1975." Pp. 268-285 in David Brinberg and James Jaccard (eds.), *Dyadic Decision Making*. New York: Springer-Verlag.

Thomson, E. Forthcoming. "Couple Childbearing Desires, Intentions and Births." *Demography*.

Thomson, Elizabeth, and Ugo Colella. 1992. "Cohabitation and Marital Stability: Quality or Commitment?" *Journal of Marriage and the Family* 54:259-267.

Thomson, Elizabeth, and Richard Williams. 1982. "Beyond Wives' Family Sociology: A Method for Analyzing Couple Data." *Journal of Marriage and the Family* 44:999-1008.

Thomson, Elizabeth, and Richard Williams. 1984. "A Note on Correlated Measurement Error in Wife-husband Data." *Journal of Marriage and the Family* 46:643-649.

Thomson, Elizabeth, Elaine McDonald, and Larry L. Bumpass. 1990. "Fertility desires and fertility: Hers, his, and theirs." *Demography* 27(4):579-588.

Thornton, Arland. 1978. "Marital Resolution, Remarriage and Childbearing." *Demography* 15: 361-80.

Thornton, Arland. 1990. "The Courtship Process and Adolescent Sexuality." *Journal of Family Issues* 11(3):239-273 (Sept).

Thornton, Arland, William G. Axinn, and Daniel H. Hill. 1992. "Reciprocal Effects of Religiosity, Cohabitation, and Marriage." *American Journal of Sociology* 98:628-651.

Toledo-Dreves, Virginia, Laurie S. Zabin and Mark R. Emerson. 1995. "Durations of Adolescent Sexual Relationships Before and After Conception." *Journal of Adolescent Health* 17:163-172.

Townes, B. D., L. R. Beach, F. L. Campbell, and R. L. Wood. 1980. "Family building: A social psychological study of fertility decisions." *Population and Environment* 3(Fall/Winter):210-220.

Waite, Linda J. 1997. Personal Communication.

Waite, Linda J., and Lee A. Lillard. 1991. "Children and Marital Disruption." *American Journal of Sociology* 96:930-953.

Waite, Linda J., and Spitze, Glenna D. 1981. "Young Women's Transitions to Marriage." *Demography* 18:681-694.

Westoff, C.F., E. Mishler, and E. Kelly. 1957. "Preferences in Size of Family and Eventual Fertility Twenty Years After." *American Journal of Sociology* 62:491-497.

Westoff, C.F., R.G. Potter, Jr., P.C. Sagi, and E.G. Mishler. 1961. *Family Growth in Metropolitan America*. Princeton, New Jersey: Princeton University Press.

Widom, C.S. 1989a. "The Cycle of Violence," *Science* 244:160-166.

Widom, C.S. 1989b. "Does Violence Beget Violence?" *Psychological Bulletin* 106(1):3-28.

Williams, Linda B. 1991. "The Level of Consensus among Partners in United States Fertility Decisions." Paper presented at the meetings of the Population Association of America, Washington, DC.

Williams, Richard. 1986. Indianapolis Revisited: A New Look at Social and Psychological Factors Affecting Fertility. Unpublished Doctoral Thesis, University of Wisconsin, Madison, Wisconsin.

Willis, Robert J. and John G. Haaga. 1996. "Economic Approaches to Understanding Nonmarital Fertility." Pp. 67-86 in John B. Casterline, Ronald D. Lee and Karen A. Foote (eds.), *Fertility in the United States: New Patterns, New Theories* [Supplement to *Population and Development Review*, Vol 22.] New York: Population Council.

Wineberg, Howard. 1990. "Childbearing after Remarriage." *Journal of Marriage and the Family* 52:31-38.

Wineberg, Howard. 1992. "Childbearing and Dissolution of the Second Marriage." *Journal of Marriage and the Family* 54:879-887.

Wu, Zheng. 1995. "The Stability of Cohabitation Relationships: The Role of Children." *Journal of Marriage and the Family* 57:231-236.

Wu, Zheng, and T. R. Balakrishnan. 1995. "Dissolution of Premarital Cohabitation in Canada." *Demography* 32:521-532.

Yllo, Kersti A. 1993. "Through a Feminist Lens, Gender, Power and Violence," in *Current Controversies on Family Violence.* Gelles Richard J. and Donileen R. Loseke (eds.) Newbury Park: Sage Publications Inc.

Zabin, Laurie S. No date. "Partner Effects on the Desire to Conceive". Department of Population Dynamics, Johns Hopkins School of Hygiene and Public Health, unpublished manuscript.

APPENDIX G

THE BIOLOGICAL AND HEALTH ASPECTS OF MALE FERTILITY: IMPLICATIONS FOR USE OF REPRODUCTIVE HEALTH CARE SERVICES

Eugenia Eckard
Office of Population Affairs

Introduction

There are a number of important differences between males and females that affect their fertility. Males are potentially almost unlimited in their number of offspring, while females are not. Also, females can be certain about motherhood, while males can not be certain of paternity. Due to these and other biological realities, it is important that we obtain information from both males and females to fully understand their fertility-related behavior as well as be able to provide the types of services that can best meet their reproductive health needs.

While the male is able to reproduce during a larger proportion of his life than a female, he is practically ignored by the medical community in matters related to reproductive health. In a society that expects women to be primarily responsible for taking the necessary steps to avoid pregnancy, the service delivery community has tended to disregard her male partner. Even though men have expressed the belief that they should share the responsibility for birth control with their partners, family planning efforts have been directed almost exclusively toward women. However, due to the increasing public costs of unintended pregnancy, the negative impact of absent fathers and issues of child-support enforcement, as well as the growing concern about AIDs and STDs, more attention than ever is being focused on males.

Research has provided some of the much needed information about male fertility-related attitudes and behavior but more information is needed. Also, because much of the information about males' family-planning behavior is based on reports from women, it is crucial that there are more efforts to obtain similar information directly from the men. By attempting to understand the experiences and perspectives of men, we may better understand their attitudes about personal responsibility and other issues influencing their use of reproductive health services. This paper examines these issues and addresses the relevant data that currently exist and that are needed to further understand these issues.

Biological Differences

Recognizing the biological differences between males and females is necessary for understanding their differential effect on fertility. Biology, just as much as the environment and culture, must be considered in the overall picture of human sexuality. Biology acts to set potentials or limits in each individual which establish the parameters within which culture and environment can exert their influence. As Udry (1994) states, "the variance in individual biology partially determines the choices we make."

At birth, there is no visual means of distinguishing the sexes aside from the genital differences. However, the sexes are known to develop with different physiological capabilities. Within the first 28 days after birth, about 25 percent more males than females die. The higher ratio of male to female deaths continues throughout life. The factors *involved in these different mortality figures obviously reflect inherent physiological sex differences.*

Boys grow faster than girls for the first 6 months of life. At the age of puberty, girls and boys experience physical changes that render them capable of reproduction. The production of new hormones in girls results in breast growth and the onset of menstruation. Boys, for whom sexual maturity occurs about one or two years later than girls, experience changes in their body and their voice.

Evidence exists which reveals that, as adults, men are more likely than women to experience erotic arousal by visual stimuli. Men often enjoy feelings of stimulation just from observing women. Women, on the other hand, are more likely to be aroused by what is often referred to as "sweet talk," possibly due to having significantly greater auditory acuity than men.

Also of significance to our understanding of the differences between the sexes is the fact that the differential treatment accorded them by society also influences their behavior. From the moment an infant is born, its biological sex influences how it will be treated by society. Possibly the most important fact about the baby for those aware of its birth is its sex. Equipped with this information, people feel they are better able to choose the appropriate clothes and toys for the newborn.

Early on, boys tend to exhibit what are regarded as male characteristics such as physical aggression, assertiveness and dominance, while females tend to be passive, nurturant, and dependent. These characteristics are reinforced and perpetuated by cultural and societal influences, thereby affecting their behavior in every aspect of their lives.

While recognizing the biological basis for behavior, it is also important to understand the manner in which this behavior is affected by societal forces. According to Udry (1994), biological factors affect behavioral predispositions, while social forces control how these predispositions are expressed. One possible area of societal influence that could do more to promote responsible behavior for men in particular is the community of health care providers.

Males' Use of Health Care

In general men tend to neglect their heath. To better grasp the issues related to males' use of reproductive health care services, it is important to understand their reluctance to seek medical services altogether. One possible explanation may be found in their early socialization. Boys are told not to cry, not to show their feelings, to be a man, not a sissy or a cry-baby. A result of this conditioning could be men's reluctance to ask for help from anyone, including medical care providers. For many men, sickness means weakness and a threat to their masculinity. The suppression or denial of feelings of pain and the attempt to stay tough may result in self-destructive behavior among men such as drinking, using drugs, dangerous driving, as well as violent and abusive behavior.

Why Women Have Been the Primary Target

For too long, men have been excluded from the domains of sexual responsibility and reproductive health. This is the result of policy and program emphasis on women as the key figures in contraceptive decision-making. Both traditional and modern methods of family planning focus solely on the woman because avoiding unintended pregnancy or limiting family size is almost always considered a female concern.

The reasons services have primarily been targeted to women is because women experience the consequences of the unwanted pregnancy more directly. Since the introduction of the pill and other effective methods, the most reliable methods of reversible contraception are female methods. Also, early contraceptive development was spurred by political pressures and financial support from feminists who sought a method by which women could regulate their own fertility. Following the success of the oral contraceptive for women, little interest developed for waging a comparable all-out campaign for a male method.

Reason for Attention to Males

The serious consequences of unintended pregnancy and their increasing public costs has brought long overdue attention to the issue of male responsibility in pregnancy prevention. Judicial and legislative actions have come about that are intended to hold men accountable for their involvement in childbearing. The negative impact of the absent father on the child's development has also spurred attention to men.

Due to the AIDS epidemic, renewed interest in the use of contraceptive methods for disease prevention has occurred among scientists, public health officials and the general public. Therefore, a large part of the explanation for the focus on men has been motivated by concern about HIV and other sexually transmitted diseases. Also, efforts to avoid both the risks of HIV and STD infection requires the use of dual methods, which necessarily involves the active participation of both the male and female.

Factors Affecting Male Use of Contraceptives/Condoms

There have been a number of studies on male fertility behavior and attitudes toward contraceptive responsibility (Billy et al., 1993; Ku et al., 1994; Marsiglio, 1993; Pleck et al., 1993; Tanfer et al., 1993; Zelnick and Kantner, 1980). Findings from these studies shed light on important aspects of male sexual responsibility, covering such topics as background characteristics, attitudes about fatherhood and attitudes toward contraception.

A substantial body of literature pertaining to the determinants of condom use has also emerged. Factors that have been found to influence use of condoms include perceptions of reference group behavior (i.e., whether the male thinks his male peers use condoms); knowledge about condoms, contraception, pregnancy risk, and AIDS; sex education and exposure to other sources of information; and personality factors such as self-esteem and locus of control.

Conservative sex role beliefs have been found to be related to negative attitudes toward male contraceptive use and the belief that contraceptive responsibility is solely that of women. The belief that men share responsibility in preventing pregnancy is associated with consistency of condom use. Males who are married and more educated agree more often with the view that contraception is not only the woman's responsibility.

Barriers

One of the barriers to the utilization of contraception by males is a lack of perceived susceptibility to the problem of unintended pregnancy. Another barrier particularly with young males is a lack of knowledge about pregnancy risk and contraceptive methods. Misinformation concerning health hazards associated with contraceptives has also been shown to influence men's behavior. Another potential impediment to effective contraceptive utilization may be sexual assault.

Many studies have also documented a significant relationship between the perception that condoms reduce male pleasure or are embarrassing and low levels of condom use. One of the major reasons given by men for not using condoms is because of embarrassment involved in obtaining them. Also, condoms are perceived as inconvenient and difficult to use.

Limited Contraceptive Options

The level of male involvement in the use of contraceptives may reflect the limited options available to men. The methods currently available for men are condoms, withdrawal, periodic abstinence, and vasectomy, none of which has the widespread acceptability of some methods for women. A serious drawback of the condom, withdrawal, and periodic abstinence is men's lack of confidence in their effectiveness. Coitus-dependent methods tend not to be as accepted as coitus-independent methods. The difficulty and expense of reversal still limit the appropriateness of vasectomy to those wishing to stop rather than space childbearing, and the method's irreversibility remains the biggest obstacle to its acceptability. Where as vasectomy is little used, it is associated with impotence, loss of virility or physical weakness.

New methods of male fertility regulation currently undergoing clinical trials have the potential of being effective as well as reversible, non-surgical, and long-acting.

Injectable or implantable hormone methods for men are as yet experimental. A pill for men remains a distant prospect.

Male Reproductive Health Issues

Men have particular health care concerns of their own and suffer from problems which need attention. These include fears of sexual inadequacy, ignorance about sexual and reproductive functioning, risk of STDs, risk of unwanted pregnancies, problems of infertility, or misunderstandings about how male and female-controlled contraceptive methods work.

Avoiding Pregnancy

While a number of factors are related to a man's belief that preventing pregnancy is solely the woman's responsibility, there is evidence that a significant proportion of males are motivated to avoid pregnancy. Research indicates that the main reason men report using condoms is actually for birth control (Sonenstein and Stryker, 1997).

HIV and STDs

Interest in avoiding infection from HIV and STDs makes screening for these diseases important to men. Evidence exists, however, that some men are unaware that a person infected with an STD could be asymptomatic. Many also have the misperception that a routine physical exam could determine whether or not they were infected.

Male Infertility

Artificial insemination with husband's semen is one of the treatments provided in cases of male infertility. Evaluation of sperm morphology is usually conducted to determine sperm count and sperm motility.

Impotence related to Testicular and Prostate Cancer

Current reproductive technology provides hope for future procreation by men facing sterilizing cancer treatment. Certain medical technologies are available to protect the reproductive potential of adult males undergoing sterilizing cancer treatments. The present clinical means for preserving the potential reproductive capacity of men at risk is cryopreservation of sperm before treatment begins, followed by assisted reproductive technology when pregnancy is desired.

Age-related Reproductive Health Issues

The consequences of adolescent sexual behavior continues to be a major public health concern. Large numbers of adolescents engage in sexual activity without protection either from pregnancy or sexually-transmitted diseases. While a great deal of information has grown on the subject of sexual activity and pregnancy-related behaviors of adolescent females, not nearly as much is available about adolescent males.

Males tend to initiate sexual activity at younger ages than females. The peer group is often one of the most powerful influences on adolescent behavior and in many instances is the principal source of sex education for male adolescents. According to Anderson (1989), some young men may become involved with peer groups that emphasize "sexual prowess as proof of manhood, with babies as evidence" A traditional masculine ideology was also found to be related to the increased belief that pregnancy enhances masculinity (Pleck et al., 1993).

Much of the response to the problem of teenage pregnancy and the possible risks of AIDS and STDs among young people has been in the form of school-based prevention efforts. Many of these efforts have focused primarily on increasing knowledge and teaching communication skills, with the intended outcome of reducing behavior that place young people at risk of pregnancy, HIV and other STDs.

Many of the partners involved in teen pregnancy are older men. However, the characteristics of the teen father and the extent to which teen fatherhood adversely affects his subsequent life outcomes is relatively unknown. The unique reproductive health concerns of this subgroup need to be explored.

Older Men

While there is nothing comparable to male menopause, men do experience changes during middle-age. Male hormone levels decrease with age and older men suffer from decreased sperm production, diminished sexual desire, and loss of lean muscle mass. They also experience shrinkage of the testicles after age 40 and have an increased risk for enlargement of the prostate by age 50.

Couple Dynamics Influencing Family Planning Decisions/Behavior

Research has shown that attitudes and behaviors of men are affected by the type of relationship in which they are involved. Evidence reveals that unmarried couples in which the men report more committed relationships are more likely to use birth control more often and more effectively than couples in less serious relationships. A study by Inazu (1987) showed that men in more serious relationships reported being more concerned about the well-being of their partner than those in casual relationships. Similar results were found in a focus-group study by Landry and Camelo (1994) where it was revealed that communication between partners about contraception was least likely to occur in casual relationships. There is also evidence that the couple's degree of communication about contraception predicts level of contraception among adolescents (Polit-O'Hara and Kahn, 1985).

Studies of females indicate that condom use is higher when females ask men to use condoms. Findings also indicate that males' perception that the partner would appreciate his using a condom is an extremely important factor in men's use of condoms (Sonenstein and Pleck, 1995).

Male Infertility

The causes of male infertility are largely undetermined, and our knowledge of the external factors affecting the male reproductive system is still limited. In particular, the role of specific environmental and occupational factors is not completely clear. However, there is evidence that exposure to certain physical and chemical agents encountered in the occupational environment might affect the male reproductive system (sperm count, motility and morphology, libido, and fertility) and/or related pregnancy outcomes (spontaneous abortion, stillbirth, low birth weight and birth).

Various confounding factors related to lifestyle (smoking, alcohol and diet) or socioeconomic status may also affect sperm quality or pregnancy outcomes. Some cases have demonstrated that stress can also adversely affect reproductive function.

Effects of Childhood Sexual Abuse on Males

Non-voluntary first sexual intercourse is correlated with earlier initiation of sexual activity, as well as increased numbers of lifetime sex partners. Findings pertaining to the long-term effects of child sexual abuse in males have revealed problems including guilt and self-blame, low self-esteem and negative self-image, problems with intimacy, sexual problems, compulsions, substance abuse and depression. A number of clinicians' case studies indicate that male survivors of childhood sexual abuse may experience attempts to prove their masculinity by having multiple female sexual partners, sexually victimizing others, and confusion over their gender and sexual identities, and a sense of being inadequate as men.

Family Planning Policy and Programs Affecting Service Delivery to Males

Evidence reveals that only a small proportion of the clients served by family planning clinics are men. Despite evidence which shows that men, including adolescent males, are motivated to use condoms and have expressed the belief that they should share the responsibility for birth control with their partners, family planning efforts have generally ignored them. Policy and program efforts that have primarily targeted women have made it unlikely for men to recognize the potential benefits of family planning services for themselves.

One possible explanation for the lack of involvement of men in family planning services is the fact that the provision of condoms, the primary reversible method of contraception available to men, does not require a medical setting, as well as the fact that this method can easily be made available to the female clients.

Other possible reasons may include the attitudes of the service providers, financial constraints, and lack of training about how to provide services to men. Physicians and/or family planning providers, for example, may assume that their clients would find a contraceptive unacceptable for men and might consequently be reluctant to recommend the procedure. Thus, the resistance of physicians could interfere with attempts to improve awareness and use of male methods.

The structural barriers that affect women's use of family planning services may also apply for men such as inaccessible delivery hours, difficult to reach facilities, and cost of services. Both a lack of information about the types of reproductive services that are available for men and about where the services that exist can be obtained may also serve as barriers to utilization of services by men.

Without special strategies to attract men, it is unlikely that men will seek services at family planning clinics even when they know they are available to them. Men may view these clinics as places for women and their children to go, and consequently may find it difficult to enter them. However, as Sonenstein and Pleck (1994) so aptly stated, "males are not a lost cause for preventive efforts."

What We Need to Know

We need to have more information about the medical and health services available to young men at risk for parenting. Information is also needed about men's use of and awareness of the availability of family planning services as well as their intention to use these services if they were available. We also need to determine the knowledge and perceptions of men about reproductive health services as well as their feelings about their experiences with these services.

We need to know why few males turn to family planning clinics or other sources of reproductive health care for contraceptive services. We also need to know the characteristics of the men who do seek reproductive health services.

Also needed is information about whether or not there are institutional or structural barriers to males' use of reproductive health services. Are there perceived social pressures which inhibit or encourage use of family planning or other reproductive health services. These forces can include partner relationships, cultural norms, and experiences with health care providers.

We need to identify ways to encourage males to use reproductive health services and to identify elements of a service delivery system that are amenable to change and improvement to ensure their use. More information should be obtained from clinics serving larger proportion of males to see how they have succeeded in attracting them.

More information is also needed about the impact of various intervention strategies on male contraceptive behavior.

The attitudes and beliefs of non-sexually active adolescent males are unknown. The factors that influence their abstinence need to be investigated further to determine their level of responsibility for contraception when they later become sexually- active.

The majority of relevant behavioral research on men is focused on their use of condoms and rarely on their support of or participation in their partners' use of various methods. Information about males' knowledge regarding effective contraceptive practices and about the female reproductive-cycle need to be obtained.

We do not have information on experiences with child abuse that may impact interpersonal and decision-making skills among young men. More research is needed to identify and examine the factors involved and to determine how these experiences affect men's attitudes about male responsibility in pregnancy prevention.

References

Marsiglio, W. 1993. "Adolescent Males' Orientation Toward the Reproductive Realm: Paternity and Contraception." *Family Planning Perspectives*, 25: 22-31.

Pleck, J.H., F.L. Sonenstein, and L.C. Ku. 1993b. "Masculinity Ideology: Its Impact on Adolescent Males' Heterosexual Relationships." *Journal of Social Issues*, 49(3): 11-29.

Polit-O'Hara, D., and J.R. Kahn. 1985. "Communication and Contraceptive Practices in Adolescent Couples." *Adolescence*, 20(77): 33-43.

Sonenstein, F.L. and Jeff Stryker. 1997. "Why Some Men Don't Use Condoms: Male Attitudes About Condoms and Other Contraceptives." Sexuality and American Social Policy, a seminar series published by Henry J. Kaiser Family Foundation.

Sonenstein, F.L. and J.H. Pleck. 1995. "The Male Role in Family Planning: What Do We Know?" Discussion Paper Series, The Urban Institute, US-PSC-21.

Tanfer, K., W.R. Grady, D.H. Klepinger, and J.O.G. Billy. 1993. "Condom Use Among U.S. Men, 1991. *Family Planning Perspectives*, 25: 61-66.

Zelnik, M., and J.F. Kantner. 1980. "Sexual Activity, Contraceptive Use and Pregnancy Among Metropolitan-Area Teenagers: 1971-1979." *Family Planning Perspectives*, 12(5): 230-237.

APPENDIX H

DATA NEEDS REGARDING MALE REPRODUCTIVE HEALTH AND REPRODUCTIVE HEALTH SERVICES

David Landry
The Alan Guttmacher Institute

Introduction

This report focuses on data sources that measure, or could potentially measure, items related to men's reproductive health, including sex education and particularly reproductive health services. Prominent data sources are reviewed and gaps in data collection are identified.

Much of the interest in increasing male involvement in reproductive health is driven by the promise that such involvement leads to healthier reproductive health outcomes for men and their partners. Indeed, sex education, counseling and health outreach services that have reached men have been shown to promote subsequent reproductive health by delaying the onset of sexual activity, and improving contraceptive efficacy (Kirby et al. 1994; Frost and Forrest, 1995; Danielson, 1990; Terefe and Larson, 1993).

There is a need for more detailed data about how men receive sexual health information and services. What type, when, from whom and why male involvement in reproductive health should be examined broadly to include the wide array of information sources and services that are related to their reproductive health. For example, sexual health information from peers, parents, the schools, the media and other informational sources should be included in measures of how men learn to maintain their reproductive health across the life course. A wide array of health services needs to be monitored as well, ranging from school athletic physicals and general physicals (where reproductive health is often a tertiary service at best, but not one that should remain uncounted), to more direct reproductive health visits made by men or visits where men accompany their partner to a family planning, abortion, prenatal, delivery, or post-natal care visit.

Sex Education/Information

There is a great deal of survey data that indirectly measures sex education via the respondent's knowledge of pregnancy and STD prevention. The Youth Risk Behavior Survey (YRBS), the National Surveys of Adolescent Men (NSAM), the National Survey of Men (NSM), and the National Health and Social Life Survey (NHSLS) are all prominent examples of this approach.

For instance, the NSM measures the respondents' knowledge of the characteristics STDs (including HIV/AIDS), the period when a woman is most likely to become pregnant, and contraceptive methods by type. The NHSLS probes respondents about their knowledge on the level of effectiveness of various methods in the prevention of HIV transmission.

Another approach to collecting information about sex education/information is to identify the source of the respondent's information. In the NSAM respondents were asked if they ever talked with either parents about sexual health topics (such as the methods of birth control and AIDS). In addition, respondents were asked about the adequacy of the amount of information on sex that was given to the average young person. The NSAM 1994 follow-up (NSAM-1) probed respondents to ascertain if they had received information about AIDS, STDs, and contraception from a range of sources ranging from television to Health department brochures.

There is a paucity of survey data from teachers or administrators on the extent of teaching of sexual education in the schools, and the content, by grade level. The last large-scale survey of teachers on the topic of sex education was conducted in 1987 (Forrest and Silverman, 1989). Given the rise in awareness about HIV and the changes in the sex education curriculums during this period, another study is due.

Measurement of Reproductive Health Services

There are several problems related to collecting information about reproductive health services for men. First, despite the long existence of male reproductive health services, a consensus on what constitutes these services has only recently started to emerge (Green, Cohen and Belhadj-El Ghouayel, 1995). In the United States, Title X guidelines that detail reproductive health services for women have been in existence for some time, but only in the last year has work begun to develop such guidelines for men.

Second, the level of men's use of reproductive health services compared to women's is considerably lower. In some cases, when the traditional methods of asking female survey respondents about their use of reproductive health services in the last 12 months is applied to a survey of males, the results are likely to yield small proportions of men receiving services over this short time period.

Administrative Records

There is a limited amount of administrative data available about health behavior and men. Title X grantees are required by the Office of Population Affairs, to submit annual service data tabulating the number of family planning visits. Three tables stratified by sex are available for 1995 visits; these include: age by race, age by Hispanic/Latino origin and service delivered (STD tests excluding HIV and HIV tests). The data indicate that out of 4.5 million Title X visits in 1995, only 96 thousand or 2 percent are by men (Marzella and Frost, 1997). There are currently no plans to change the information collected about men.

Surveys

There are four national surveys that provide estimates on the total number of men receiving reproductive health services by a large range of services categories. Among 15-

26 year olds, the NSAM-3 measured if respondents had received the following services during the past 12 months: a physical exam, STD testing, counseling to prevent pregnancies and counseling to prevent STDs and AIDS. A separate item measured if respondents discussed contraception, pregnancy, STDs or AIDS in the past 12 months with a doctor or nurse. A drawback to the using only a 12 month recall period is that no information can be obtained on the number of respondents who ever received medical services related to reproductive health.

Most surveys that include men and measure reproductive health services focus on only a few categories of reproductive health services rather than the range of sexual health services. For instance, the NHSLS concentrates on sexual dysfunction and STD incidence and treatment; there are few questions about counseling and other services to prevent STDs and unintended pregnancy. The NHSLS sexual dysfunction section measures if respondents experienced 8 categories dysfunction in the past 12 months, and if they sought help by type of provider.

The NHSLS STD incidence and treatment measures are relatively detailed. For 11 types of STDs, the survey measures: ever been diagnosed in lifetime, frequency of diagnoses, diagnosis in last 12 months, place of treatment and partner that infected respondent. The survey also measures if the respondent: ever wondered if they were infected with an STD, ever visited an STD clinic (and the main reason for going to the clinic) and ever experienced STD related symptoms in the last 12 months. The utility of the detailed STD data, particularly when only males and STDs in the last 12 months are analyzed, is limited by the sample size of the NHSLS (3,432 men and women).

The National Survey of Men (NSM) provides data on: ever had an STD, how many times, the month and year, the length of episode, visits to a doctor or clinic for treatment, any return for treatment, and ways in which the respondent altered his sexual behavior after he contracted an STD.

The questionnaire from the National Survey of Family Growth Cycle V (NSFG), serves as a useful model for beginning to design survey questions to measure the range of male reproductive health services and the distribution of these services across the male reproductive life cycle. Of course, the NSFG questions would need to be modified to address services particular to males, such as testicular cancer and prostate screening and treatment. The dimensions of health services the NSFG measures are: 1) the type of service received (such as sterilizing operation, HIV test, testing and treatment for other STD, a method or prescription for method, a check-up or test related to birth control, counseling about birth control and sterilization, abortion); 2) the period when the service was obtained (in the last 12 months from interview and the first visit for respondents under 25); 3) the type of provider; 4) the type of facility; 5) the method of payment; 6) the century month of 1st clinic visit after first menstrual period.

Proxy reports by women about their partners are a common method of collecting information. The NSFG itself could be expanded to measure which of the respondent's partners ever accompanied her on a reproductive health visit (including prenatal, delivery and postnatal care visits).

References

Danielson, Ross et al. 1990. "Reproductive Health Counseling Services for Men: Is There a Need?" *Family Planning Perspectives,* 22:115-121.

Green, Cynthia, P., Sylvie I. Cohen and Hedia Belhadj-El Ghouayel. 1995. *Male Involvement in Reproductive Health, Including Family Planning and Sexual Health,* Technical Report 28, New York: United Nations Population Fund.

Forrest, Jacqueline Darroch, and Jane Silverman. 1989. "What Public School Teachers Teach About Preventing Pregnancy, AIDS and Sexually Transmitted Diseases," *Family Planning* Perspectives, 21(2):65-72.

Frost, JJ and Forrest, J.D. 1995. Understanding the Impact of Effective Teenage Pregnancy Prevention Programs. *Family Planning Perspectives,* 27:188-195.

Kirby, Douglas et al. 1994. "School-Based Programs to Reduce Sexual Risk Behaviors: A Review of Effectiveness," *Public Health Reports,* 109:339-360.

Mascarella, Kathleen and Jennifer Frost. 1996. "*Family Planning Annual Report: 1995 Summary, Part 1, Detailed Tables and Data Forms,*" Report submitted to The Office of Population Affairs, U.S. Department of Health and Human Services, New York: The Alan Guttmacher Institute.

Terefe, Almaz and Charles P. Larson. 1993. "Modern Contraceptive Use in Ethiopia: Does Involving Husbands Make a Difference?" *American Journal of Public Health,* 83(11):1567-1571.

APPENDIX I

INDICATORS OF MALE FERTILITY, FAMILY FORMATION, AND SEXUAL BEHAVIOR

Anne Driscoll
Child Trends, Inc.

Kristin Moore
Child Trends, Inc.

William Mosher
National Center for Health Statistics

Martin O'Connell
U.S. Census Bureau

Stephanie Ventura
National Center for Health Statistics

Introduction

In the past, most of the focus of fertility-related research, as well as research into the well-being of children, has focused on the mother-child dyad. Little attention has been paid to the role of males in conceiving and raising children, including their intentions and attitudes about becoming fathers, their relationships with the mothers of their children, and their relationships with their children, or the absence of such relationships. To date, we have no institutionalized mechanism for collecting data on male fertility and sexual behavior. Yet, having indicator data to describe patterns and monitor trends among males would be useful for both policy and research purposes; such data is necessary to show which indicators affect outcomes of importance to both groups.

The goal of this paper is to outline the types of indicators of male fertility and fatherhood that would ultimately be informative for researchers and policy makers in the area of child well-being. To better understand male fertility, indicators must inform us about how men behave as sexual beings. To better understand fatherhood, we need to develop indicators that describe how men act think about having children and their responsibilities for their children.

We define an indicator as a measure of a behavior or attitude that traces status or well-being across population groups over time, across groups, and/or across geographic areas. Indicators are descriptive and are not intended to be explanatory. Indicators of male fertility should meet several criteria (see Moore, 1995, for a discussion). They should:

1. assess male fertility and fatherhood across a broad array of outcomes, behaviors and processes;
2. have very high coverage of the population or event being monitored and data collection procedures should be rigorous and consistent over time;
3. cover both teenage and adult males;
4. have consistent meaning across socioeconomic and cultural subpopulations;
5. anticipate future trends and social developments, and provide baseline data for subsequent trends;
6. be geographically detailed, at the national, state and local levels;
7. be comparable in meaning over time; and
8. allow the tracking of progress in meeting societal goals regarding male fertility, fatherhood, and family formation

Data for indicators on sexual behavior and fertility often come from household surveys. However, administrative data represent another crucial source. For example, data on births come from the vital statistics system.

In order to lend some useful structure to this enterprise, we are dividing indicators into two groups. The first group consists of indicators that measure behaviors that are related to male fertility and family formation. The second group is comprised of indicators that describe attitudes towards various aspects of male fertility and family formation. This is a somewhat artificial division, but one that is hopefully useful to make in terms of thinking about what indicators are important to the understanding sought.

To organize this discussion, we have categorized indicators of both behavior and attitudes into four broad and overlapping areas. They are:

1. sexual behavior,
2. contraception,
3. pregnancy and pregnancy resolution,
4. marriage and cohabitation, and
5. fatherhood (attitudes only).

The sexual behavior category includes sexual history, partner characteristics and non-voluntary sex. The contraception category addresses frequency of use, types of contraception and the circumstances in which different types of contraception are used. Much of the focus of the indicators in the pregnancy and pregnancy resolution category is on unintended and mistimed pregnancies (there may be a lack of agreement between partners on this issue) and the roles and responsibilities of males when such a pregnancy occurs. Desirable indicators of marital and cohabitation histories and attitudes towards both arrangements under different situations are discussed in the next category. Last, indicators of the roles of fathers in their children's lives and attitudes towards these roles, under a variety of living arrangements, are addressed in the children/fatherhood category.

Because resources are finite, not all of these indicators can, or perhaps should, be produced. At this time, we have chosen to not prematurely eliminate any indicators, but rather to present a broad list of indicators for discussion. Table A summarizes a more limited set, however, as it includes those indicators identified as high or medium in priority during a subgroup meeting.

Indicators of Behavior

Several general issues must be kept in mind when devising and testing potential indicators of sexual, fertility and family formation behavior. These are personal topics and different words and phrases connote different ideas and attitudes and affect how respondents answer questions, which in turn affect understanding on the part of the respondent, their willingness to answer truthfully, and their ability to answer accurately. Therefore, careful wording of questions is essential.

Second, because many of the questions that might be asked about male fertility as well as fatherhood are sensitive in nature, surveys must be sensitive not only to wording but to mode of administration. To address this concern, the issue of whether and when self-administered questions should be used as opposed to interviewer-administered questions must be resolved for varied topics and survey populations.

Third, the time periods covered in questions must be appropriate. When asking about a particular behavior, the length of time covered and the recency of the time period must both be considered when writing questions that will elucidate information that is both accurate and useful.

Table A. Indicators of Male Fertility, Family Formation and Sexual Behavior

Sexual Behavior	
Behaviors	Attitudes
High Priority Indicators age at first intercourse number of partners in past year number of times had sex in past year characteristics of current partner victim of sexual molestation perpetrator of forced/coerced sex seriousness of relationships *Medium Priority Indicators* number of lifetime partners characteristics of previous partners *Low Priority Indicators* timing and content of sex education dating history	*High Priority Indicators* best age to have first sex when sex is acceptable or allowable allowable levels of persuasion/coercion
Contraception	
Behaviors	Attitudes
High Priority Indicators contraception used at first sex - by male - by female contraception used at last sex - by male - by female *Medium Priority Indicators* contraception during specific time periods negotiation about contraception	*High Priority Indicators* male-based methods *Medium Priority Indicators* female-based methods male's responsibility for preventing pregnancy female's responsibility for preventing pregnancy

BEST COPY AVAILABLE

Pregnancy and Pregnancy Resolution	
Behaviors	Attitudes
High Priority Indicators number of pregnancies timing of pregnancies resolution of each pregnancy *Medium Priority Indicators* male's role in pregnancy resolution male's level of agreement with resolution number of partners male has children with	*High Priority Indicators* abortion *Medium Priority Indicators* pregnancy intendedness circumstances under which pregnancy is desirable *Low Priority Indicators* factors that should affect pregnancy resolution role male should play in pregnancy resolution adoption

Marriage, Cohabitation and Non-cohabiting Sexual Relationships	
Behaviors	Attitudes
High Priority Indicators number of marriages current marital status ever married before age at first marriage characteristics of current spouse current marriage preceded by cohabitation current marriage followed conception current marriage followed birth number of cohabitations currently cohabiting age at first cohabitation characteristics of current partner current cohabitation followed conception current cohabitation followed birth number of non-cohabiting relationships currently in non-cohabiting relationship age at first non-cohabiting relationship characteristics of current partner conception within non-cohabiting relationship birth within non-cohabiting relationship *Medium Priority Indicators* duration of each marriage	*High Priority Indicators* best age to marry ideal circumstances to marry acceptable circumstances to marry cohabitation

Fatherhood	
	Attitudes
	High Priority Indicators importance of becoming a parent value of children consider having a child while unmarried best age to become a father father's responsibility mother's responsibility child support

BEST COPY AVAILABLE

A fourth issue is question continuity. Although continuity over time is crucial, so is the need to develop new and better measures. This need must be weighed against the need to repeatedly ask exactly the same questions over time. This issue also arises with administrative data, where improvements in data collection are desirable and yet at the same time undermine our capacity to track trends.

An additional issue that must be addressed is how often to collect data on men. Every five years would not result in data that would be as timely as would be desired, while annual data collections are not feasible for financial and other reasons. While collecting data every two years may also not be financially feasible, it would be useful to have data at two-year intervals. Failing that, collecting indicator data three years may be both economically feasible and often enough to track trends on a timely basis.

A sixth issue is that of the statistical significance of data that are collected. A primary goal of gathering indicator data is to track trends over time. Therefore, it is important to be aware of the margin of error. When this margin is too large, it is not possible to confidently determine the direction or slope of the time trend of a particular indicator. This issue is pertinent to all survey data, not just that collected on males.

Seventh, there is the issue of informant. Since fertility surveys are already conducted among women, one potential source for some of these data is women. However, the fact that males report more sexual partners than do women (Smith, 1991; Laumann, et al., 1994) indicates that such data may be problematic Although information on sensitive behaviors and on attitudes will have to come from men themselves, it is worth exploring the possibility that some demographic data on men might be obtained from women. Nevertheless, since some information must be obtained directly from men, the methodological challenges that surround getting representative samples of males must be addressed. Another potential source of some data on males is vital records data. Only minimal information is collected about the father, and reporting is low. For example, the age of the father is not provided in a substantial minority of cases. Also, four states do not ascertain the marital status of the child's parents, and no states obtain the cohabitation status of unmarried parents, as is done in Puerto Rico. In addition, similar questions could be added to the CPS, although the lack of continuity in the fertility supplements of the CPS is a cause of concern. To obtain the greatest benefit from CPS data, a regular schedule of data collection is needed.

Finally, the representativeness of survey data for males must be considered. Most previous surveys are household-based, but this may not be the best way to construct a representative sample of males, as men are generally more transitory than females and their living arrangements tend to be more unstable. For example, a population that is almost universally ignored in fertility-related surveys of women is individuals who are in the military or who are incarcerated. While this may not pose significant issues of representativeness when surveying females, given that most persons in these two populations are male. However, both the military and prisons have high percentages of minority men, unmarried men, and men from lower socioeconomic backgrounds, and it is critical to include these groups in surveys of males.

Age may be another issue affecting representativeness. Most sexual behavior and fertility surveys of females focus on the 15 to 44 year old age group, since this represents the average reproductive lifespan of women. Therefore, for reasons of comparability, it makes sense to target this age group for men as well, although men older than 44 years are fertile. Under certain circumstances, it may make sense to target a core age group of men, ages 18-34. One reason for this would be limited financial and other resources. Another reason may be the desire to focus on lifetime behavior; in this case, limiting questions to younger individuals might limit recall bias. On the other hand, older men may be partners of younger women, so that a limited age range fails to include important groups of men.

Clearly, a number of substantive and methodological issues need to be considered as efforts move forward to enhance our understanding of male sexual and fertility behavior.

1. Sexual Behavior

Sexual behavior is a rather broad topic; in an effort to make it less unwieldy, the discussion of sexual behavior indicators will be approached using a sexual history framework. Included in this framework are age at first intercourse, number and characteristics of partners, marital and cohabitation histories, contraceptive use, non-voluntary sex, and sexual activity in the past year, including most recent incidence of sexual intercourse.

Indicators of sexual history should begin with age at first sex. Number of partners during the last year is a high priority measure; of slightly lesser importance is number of lifetime partners. Indicators that measure the seriousness or longevity of sexual relationships with different partners would also be informative. Lower priority indicators of males' younger years would include dating history and the timing and content of sex education.

Also along these lines, indicators are needed that describe males' sexual partners, including ages of partners, their race and ethnicity, marital status, relationship to the partner, previous sexual experience (including number of births), and such socioeconomic characteristics as education, employment status, income, country of birth and duration of residence in the U.S., religion and religiosity. This information is particularly important for males' current partners, and slightly less important for previous partners. Furthermore, it is likely that information about current partners would be more reliable than when respondents are asked to recall past partners. Currently, the 1995 NSFG contains information on most of these characteristics for the male partners of female respondents. Information of this sort in conjunction with indicators of various sexual behaviors and contraceptive use would almost surely prove illuminating in the effort to more fully understand male fertility. (A caveat must be kept in mind however. The data gathered about males through surveys of females may not be representative of the male population, but rather of the partners of a representative group of females. On the other hand, females may report on male partners who are unlikely to be captured in surveys of males, either because they are in prison, in the military, or have no fixed address.)

The issue of sexual orientation or gender of sexual partners is also pertinent. While men who only have sex with men are, for all intents and purposes, not relevant to the goal of gathering information about male fertility and family formation, men who have sex with both men and women may put their female partners at higher risk for exposure to HIV (and therefore expose children of these couples to HIV) than men who have sex exclusively with women. Similarly, ascertaining the types of sexual behaviors in which men engage may be important to know because different sexual acts carry different risks. Only vaginal intercourse carries a risk of conception, while anal intercourse is associated with higher risk of transmission of HIV from male to female. Other forms of sexual activity are of interest only insofar as they are related to fecundity.

Indicators of forced sex and sexual molestation may be approached from two directions. First, while girls and women are more likely to be the victims of rape and molestation, the incidence among boys is high enough, and the possible consequences serious enough, to warrant careful measurement. Thus, youths and adults should be asked if they ever experienced any type of sexual molestation, at what ages these events occurred, how often they occurred and who molested them. Second, males should be asked whether they have ever forced or pressured a woman to have sex against her will. This area is complex as another person's will may be difficult to perceive. Moreover, any act that could be construed as a crime is inevitably going to be under-reported. However, it is important to start gathering this type of information as women report that less than voluntary sex is a relatively common occurrence (Abma, Driscoll and Moore, 1998). In so far as sexual and power relationships between men and women are related to male fertility and the consequences of this fertility, the topic deserves to be explored in more detail. Gathering information on this topic from men will be particularly challenging as little is known about how to achieve good response rates and how to get valid, interpretable data. An area of sexual behavior which may overlap a great deal with the issue of forced sex is that of the use and abuse of alcohol and other drugs in conjunction with sex.

Substance use is related to the lowering of inhibitions and the impairment of judgment. Therefore, alcohol and drugs are probably often associated with individuals engaging in sex under circumstances that they would normally not have, had they not been inebriated or high. Such circumstances could include having sex with someone they do not know, not using contraception, or putting themselves or their partner in a potentially physically threatening situation. Individuals who combine substance use with sexual activity may be putting themselves at greater risk of negative outcomes, including an unintended pregnancy, an STD, or being guilty of, or a victim of, an unwanted sexual encounter. Indicators of whether respondents have been under the influence of alcohol and/or drugs while engaging in sex ever or in the past year would potentially contribute to explaining sexual behavior that seems irrational or against the best interests of respondents.

While it is important to collect sexual history data, sexual behavior indicators should generally focus on sexual activity in the past year because the recency of events should lead to more accurate reporting by respondents. In addition, it provides a more comparable duration of exposure. These considerations apply to all areas of sexual activity, including the number of times respondents had sex, the number and characteristics of partners, and the circumstances under which sex took place. Indicators that describe respondents' most recent sexual experience may be representative of their general sexual experience and behavior and it may be easier for respondents and result in more accurate reporting to focus on the most recent incident. In addition, it provides a common unit of exposure, compared to the past year, a time when exposure may vary substantially across persons.

2. Contraception

Contraceptive use is, of course, intimately intertwined with sexual history. While it is routine now to ask females if and what kinds of contraceptives they use, there is less data on males. Nevertheless, it is considered a high priority to start gathering contraception information from men. While in one sense, contraception indicators gathered from male respondents would focus on male forms of contraception -- condoms, male sterilization and withdrawal, males can also be asked what forms of contraception their partners used. Male reports, however, would potentially be compromised by lack of knowledge on the part of males of the type of contraceptive their partners used, as well as whether they indeed did use any contraception. Methodological work might examine the level and accuracy of knowledge that males display on this topic.

Indicators of contraceptive use should contain information on the type(s) of contraceptives used by the male and/or his partner at first sex and at most recent intercourse. A lower priority indicator would measure types of contraception used during specific time periods of males' lives, such as adolescence and young adulthood, to explore age and cohort patterns for this indicator. Although data can be compared to surveys of women, it must be acknowledged that the quality of these data would be questionable because large proportions of men, particularly unmarried men, do not have complete knowledge of the birth control methods used by their partners.

Another aspect of contraceptive use that would be of secondary importance is how males report both the level and type of discussion and negotiation about birth control they engage in with their sexual partners, and whether males know if their partners used any birth control. In this case, the size of "don't know" category would be as informative to researchers as the reports regarding methods. Indicators that measure types of partners and relationships could be tabulated in conjunction with data on discussion and negotiation about contraception to further our understanding of under what circumstances discussion and negotiation around this subject takes place and the outcomes of these actions. Before good quality data can be gathered on this topic, methodological work, including qualitative studies such as focus groups that include both males and couples, must be conducted in order to figure out how to ask about these topics. Finally, data on payment for contraception might illuminate our understanding of the male role in fertility in different types of relationships, though, again, it would be of secondary priority.

3. Pregnancy and Pregnancy Resolution

Among pregnancies leading to births, the number and timing of pregnancies is a reliable and standard measure of female fertility. However, data on abortions continue to be poor. For example, information on pregnancies leading to births and births from the 1995 NSFG is good, but data on abortions cannot be used for indicators. This problem promises to be even larger for males. Administrative data, such as vital statistics information, while useful for many purposes, tell us nothing about males and abortion.

Although data from males on the number, timing and resolution of the pregnancies they are responsible for are crucial for an understanding of male fertility and sexual behavior, there is a dearth of understanding of how to obtain accurate and complete information about pregnancy and pregnancy resolution from men. This is an area in which methodological work on how to improve reporting is very much needed. Under some circumstances, men may not know that they are responsible for a pregnancy and are therefore unable to report it. Even when confidentiality is guaranteed, an additional source of under-reporting may be men's unwillingness to report a known pregnancy. Nevertheless, even given this limitation, such questions should be asked of men to ascertain, at the very least, their known fertility.

Each conception has four possible outcomes and, although not as crucial as accurate information on number, timing and resolution of pregnancies, it would be helpful to have data about how men influence the resolution of a pregnancy. A pregnancy can end in a miscarriage; it can be terminated through abortion; it can result in a live birth, or in a stillbirth. Furthermore, when the result is a live birth, the mother may either keep the baby or give it up for adoption. Although miscarriage and stillbirth are not the result of conscious decisions, abortion and whether a baby is kept by the parents or put up for adoption are conscious decisions. With each reported pregnancy, indicators that describe the resolution of the pregnancy and the male's role in that resolution are would be needed. Males' input into the decision about how a pregnancy was resolved should be measured, as should their level of agreement with the outcome, possibly using a scale measure. It is also useful to know the number of partners by whom males have children as this has repercussions for the resulting offspring.

4. Marriage, Cohabitation and Non-cohabiting Sexual Relationships

On-going sexual relationships between men and women can take several forms. Couples may be legally married, they may cohabit but not be legally married, or they may have a sexual relationship but each partner maintains a separate residence. Marital, cohabitation and non-cohabitation relationship histories should be collected from males. Marital histories should include data on number and duration of marriages, age at first marriage, whether the current marriage was preceded by cohabitation with the respondent's spouse, and whether a marriage followed a conception or birth. The demographic and socioeconomic characteristics of current spouses should be gathered from male respondents. Similarly, cohabitation histories should include information on number, duration and timing of cohabitations, whether conceptions or births occurred prior to, or during cohabitation, and whether cohabitation with a partner led to marriage. It is also important to know the socioeconomic characteristics of males' current cohabiting partners. Parallel information should also be gathered on non-cohabiting sexual relationships.

Marriage is a sensitive topic for males because of the issues of child support and alimony. The current state of knowledge on whether reliable marital and cohabitation histories can be collected from men leaves much to be desired; the limits of what males can and will report are not known.

Indicators of Attitudes

The connection between attitudes and behaviors is not clear-cut. There is debate among social scientists about whether attitudes influence behavior, and if they do, in what way. While global attitudes may not influence specific behaviors, more narrow and personally-focused attitudes do predict behavior. Moreover, there have been tremendous changes in attitudes about marriage, fertility and fatherhood (Thornton, 1995), which have tracked closely with behavior, making it advisable to gather information on males' attitudes and opinions towards the topics related to male fertility.

As with the behavioral indicators outlined above, the creation and use of attitudinal indicators require that several issues be addressed. As noted for questions about behaviors, the context of questions that ask about attitudes is crucial. Context includes the wording of questions, the order of questions within a survey, and whether the questions are self-administered or interview-administered. Self-administered surveys are more likely to elicit respondent's true attitudes than interviewer-administered surveys, particularly on sensitive topics. In addition, self-administered questionnaires can also be less expensive. The second issue that should be dealt with is whether the attitudes measured are personal or general attitudes. For example, should questions about abortion or cohabitation query how respondents' attitudes would shape their own behavior on such issues or tap their beliefs about what is right for society in general? A third issue concerns the strength or depth of respondents' feelings about a particular issue. While respondents may produce an answer to an attitudinal question when prompted via an interview or questionnaire, the topic may or may not be salient in respondents' lives and these attitudes may be strongly or loosely held.

1. Sexual Behavior

Males' attitudes towards sexual behavior are potentially important in understanding that behavior. Although not entirely easy to gather, collecting indicator data which tap males' opinions on under what circumstances sexual activity is acceptable or allowable should be a priority. These circumstances might include the marital statuses of both partners, the relationship between partners, and partner characteristics, including age. Included in this area could be a measure of what age is considered the best age to first have sexual intercourse. Attitudes towards non-voluntary sex and allowable levels of coercion or persuasion are equally important; however, it is again likely that this information will be difficult to gather. It would be useful, whenever appropriate, to ask parallel questions of males and females so that attitudinal trends of the sexes can be compared over time.

2. Contraception

The measurement of males' attitudes towards contraception can generally be considered of medium priority. When collected, indicators should cover two overlapping areas. The first area is males' opinions of their responsibility for preventing pregnancy; indicators should capture attitudes about both males' and females' roles. Attitudes about use of methods and about who pays for birth control (particularly among unmarried couples) also ought to be measured. The second area is males' attitudes towards specific contraceptive methods. While particular attention should be given to examining attitudes towards male-based methods -- condoms, male sterilization and withdrawal -- males' feelings about female-based methods also ought to be measured.

3. Pregnancy and Pregnancy Resolution

Accurate measures of male attitudes about when, and under what circumstances, pregnancy is desirable may be helpful in increasing our understanding of fertility. Along these lines, males' attitudes about pregnancy intendedness and towards the resolution of unintended or unwanted pregnancies should be measured, including attitudes about acceptable reasons for terminating a pregnancy. Attitudes on whether males should have a say in pregnancy resolution and what their responsibilities should be after that decision has been made may also be informative. Similarly, males' attitudes towards adoption as an option should be measured, including in which situations adoption is preferable to keeping a child and fathers' rights and responsibilities related to such a decision.

4. Marriage and Cohabitation

The measurement of men's attitudes towards marriage should assess males' opinions about the ideal and acceptable circumstances under which people should marry, including the ages and economic situations of their partners. Attitudes towards cohabitation should also be measured, including whether cohabitation before marriage is preferable and acceptable or possibly whether partners with children should cohabit or marry. Attitudes about marriage after conception and after childbirth may affect or reflect signal social changes in pregnancy resolution behavior.

5. Fatherhood

Finally, males' attitudes towards children may affect sexual and fertility behavior. Indicators might include basic opinions such as the ideal number of children and the best age to become a father. In addition, opinions about what constitutes a father's responsibility to his children are important. Comparable questions about the scope and depth of mothers' responsibilities towards their children would be important to advancing how males approach decisions about fertility and marriage. Regarding child support, informative measures may include attitudes towards when child support should be obligatory, different levels of support, whether a father's marital status at the time of a child's birth influences attitudes towards child support, and how child support is related to other forms of paternal support and contact.

Population Sub-groups

It is often informative to divide a population of interest into subgroups and make comparisons across these groups on a variety of indicators or factors. In developing indicators of male fertility and fatherhood, several ways of categorizing males promise to aid our understanding of the entire population. These categorizations include:

1. age,
2. marital status,
3. race/ethnicity,
4. education,
5. income,
6. employment status,
7. parity, and
8. number of children in the household.

Men in each of these groupings are expected to behave differently in the areas of male fertility and fatherhood and to hold different attitudes towards these topics. For example, adolescents are predicted to have caused fewer pregnancies and have fewer children than older men. It is also likely that younger men and single men will have different attitudes towards acceptable sexual behavior and marriage than older men and married men. It is also probably safe to predict that many measures of fertility-related behaviors and attitudes will vary across the different socioeconomic categories listed above. However, it will also be informative to determine which indicators do not vary by age, marital status, race/ethnicity, SES, or fatherhood status.

Existing Sources of Indicator Data

A number of these indicators have been included in past surveys that either focused on males or included males and females. For example, the General Social Survey (GSS) interviews adults, both men and women, on their attitudes towards abortion, cohabitation, and the ideal number of children. The GSS also contains questions on number of sex partners during various time periods, the gender of those partners and whether they were steady or non-steady partners. Both the National Survey of Families and Households (NSFH) and the National Longitudinal Survey of Youth (NLSY) include items on fertility such as the timing and number of births, and whether any births were unwanted or unintended. Both also contain items from which marriage and cohabitation histories can be constructed. The National Survey of Adolescent Males (NSAM) includes both general and partner-specific sexual and contraceptive histories, pregnancy histories and some information about fatherhood, as well as measures of attitudes towards contraceptive responsibility, sex, cohabitation, abortion, children and gender role identity for a sample of young males. Although the NSFG is a survey of women, it can be used as a proxy source of information on male demographic characteristics and wantedness of pregnancies by males.

References

Abma, J., Driscoll, A., and Moore, K.A. 1998. Young Women's Degree of Control over First Intercourse: An Exploratory Analysis. *Family Planning Perspectives, 30(1):12-18.*

Laumann, E.O., Gagnon, J., Michael, R. and Michaels, S. 1994. The Social Organization of Sexuality: Sexual Practices in the United States. (pp. 172-224). University of Chicago Press.

Moore, K.A. 1995. Criteria for Indicators of Child Well-Being. In Indicators of Children's Well-Being: Conference Papers, Vol. 1. Institute for Research on Poverty SR #60a.

Mosher, W.D., Pratt, W.F., and Duffer, A.P. 1994. CAPI, Event Histories, and Incentives in the NSFG Cycle 5 Pretest. Proceedings of the Section on Survey Research Methods, American Statistical Association, 1:59-63.

Smith, T.W. 1991. Adult Sexual Behavior in 1989: Number of Partners, Frequency of Intercourse and Risk of AIDS. *Family Planning Perspectives*, 23(3):102-107.

Tanfer, K. 1993. National Survey of Men: Design and Execution. *Family Planning Perspectives*, 25(2):83-86.

Thornton, A. 1995. Attitudes, Values, and Norms Related to Nonmarital Fertility. In *Report to Congress on Out-of-Wedlock Childbearing*. DHHS Pub. No. (PHS) 95-1257.

APPENDIX J

CONSTRUCTS USED ON DATA COLLECTION

Table 1. How is Father Involvement Assessed In Large Data Sets: Summary of Father Involvement Categories by Data Set

Data Set	NLSY	PSID	MILC	NSFH	NCS	BALT	NHSCH	PSYP	HSB	NELS	NFVS	SCCS	SPC	ADDH
Involvement Measures														
Positive Involvement:														
Presence/Absence	X	X	X	X	X	X	X	-	X	X	X	X	X	X
Communication	X	X	X	X	-	-	-	X	-	-	-	X	-	X
Teaching	-	X	X	X	X	-	-	-	X	X	X	X	X	X
Monitoring	-	X	X	X	X	-	-	-	X	X	-	X	X	X
Thought Processes	-	X	-	X	-	-	-	-	-	-	-	-	-	-
Errands	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caregiving	-	X	-	X	X	X	-	-	-	-	-	X	-	-
Child Maint.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shared Interests	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Availability	X	X	-	X	X	X	X	-	-	-	-	X	X	X
Planning	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Shared Act.	X	X	-	X	-	X	-	-	-	-	-	-	X	X
Providing	-	X	-	X	-	X	-	-	-	-	-	-	-	X
Affection	-	X	X	X	X	X	-	X	-	X	-	X	X	X
Protection	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Emotional Supp.	-	X	-	X	X	X	-	-	-	-	-	-	X	X
Other Family Process	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Negative Involvement:														
Conflict	-	X	X	X	X	-	-	-	-	-	X	-	-	X
Harsh Punishment	-	X	-	X	X	-	-	-	-	-	X	-	-	-
Abuse	-	-	-	-	-	-	-	-	-	-	X	-	-	-
Non-payment	-	-	-	-	-	-	-	-	-	-	-	X	-	-

NLSY=National Longitudinal Survey of Youth; PSID=Panel Study of Income Dynamics, child Supplement (1997); MILC=Marital Instability Over the Life Course; NSFH=National Survey of Families and Households; NCS =National Survey of Children; BALT=Baltimore Study of Unplanned Teen Parenthood; NHSCH=National Health Interview Survey of Child Health; PSYP=Wisconsin Study of Premarital Sexuality Among Young People; HSB=High School and Beyond; NELS=National Education Longitudinal Study; NFVS=National Family Violence Study; SCCS=Stanford Child Custody Study; SPC=Survey of Parents and Children; ADDH=Add Health Survey

BEST COPY AVAILABLE

Table 2. National Longitudinal Study of Youth, 1979-1993

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Live in household with father/step-father Distance father lives from mother Father alive Year by year history (birth - age 18) of living with biological father/adoptive father
Communication	Talk about sex
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	Number of times father visits child; length of visits Child see father(-figure) daily (children under 5 years) Child see and spend time with father (-figure); how often (children 6 years and older)
Planning	
Shared Activities	How often with father(-figure) outdoors (children 6 years and older)
Providing	
Affection	
Protection	
Supporting Emotionally	

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	
General Comments	Cohort of youth 14 to 21 years old in 1979

Table 3. Father Involvement, Child Development Supplement , PSID

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Biological father still living; how far away does he live
Communication	In past 12 months, how often child talk on telephone or receive a letter from father not in household
	How often discuss with child: school activities; things child studies; child's experiences
Teaching	How much schooling father hope child will complete; how much expect child will complete
	In past week, how many time have you: grounded child; taken away TV or other privileges; taken away allowance; sent child to room
	Agreement with attitudes about mother's/father's role in child rearing (e.g. essential that father spend time interacting and playing with children, mothers are naturally more sensitive caregivers than fathers are)
	When did respondent take parenting classes
	Degree of conflict between parents on child related issues (how child raised; spending money on children; time spent with children)
	Question asking how involved the respondent's biological or adoptive father was in raising you: have another father figure; how much influence your father's involvement had on you in raising your children
	Agreement with attitudes on 21 items regarding husband's/wive's role in family (e.g. impacts on children if mothers work, daycare for children)
	Parent rating of most important things child needs to learn to prepare child for life

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Monitoring	10 items related to hypothetical situation regarding child bringing home report card with grades/progress less than parent expected--what is likelihood parent would e.g., contact teacher or principal; talk with child; spend more time helping child Are there many rules; are they strictly enforced Set of nine questions with the following form: How often do you (set limits on child's time watching TV; set limits on what is watched; limit snacks; discuss rules with children) How often know who child is with when child not home How many of child's close friends do you know by sight and by first and last name
Thought Processes	Set of 9 statements about how parent feels raising children (e.g., being parent harder than thought; feel trapped my responsibility as parent; would do better in life without my child)
Errands	
Caregiving	Set of 9 questions regarding which parent(s) actually does the child-related tasks (e.g., bathing child, buying clothes, selecting a pediatrician)
Child-Related Maintenance	
Shared Interests	
Availability	In past 12 months, how often child see father; when last see father; how many day stay with father In past year has father outside household taken child on vacation In 1995, how many days child spend with you (father outside of household) Participation in school activities (11 items), e.g. conference with teacher observed child's classroom, attend PTA-type meetings

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Planning	Agreement with 4 statements about rearing/educating children (e.g. parent should not question teacher's methods) 4 items regarding participation in child's schooling/program enrollment (e.g., obtain information about teacher, meet with teacher) Set of 9 questions regarding which parent is responsible for planning the child-related task (e.g., bathing child, buying clothes, selecting a pediatrician)
Shared Activities	How often read to child; take child to grocery; talk to child when busy How often done the following (13 items) with child (e.g., wash or folded clothes, gone to store, worked or homework) How often in past month have you: spent time in one of child's favorite activities; joked or played with child; talked about something child interested in How often father outside household spend time with child in leisure activities; religious activities; talking, working on project, playing, school or other organized activities
Providing	Financial help from father outside household in buying clothes, toys, presents; paying camp or lessons; paying dental or insured medical expenses; paying child's medical insurance
Affection	In past week, how many times have you: praised child; shown physical attention (hug, kiss, stroke hair, etc.); told another adult something positive about child In past month, how often have you hugged or shown physical affection; told child you loved him/her; told child appreciated something he/she did Rate child's relationship with you
Protection	To primarily make life better for child, has respondent ever: moved to another neighborhood; increased work hours; decreased work hours
Supporting Emotionally	Father's influence in making decisions about things such as religion, education

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Negative Involvement:	
Conflict	How much trouble has child been to bring up Child does what parent tells her
Harsh Punishment	When child angry, if child hit you would you (e.g., hit back; give time out); if child said "I hate you", or swear would you (e.g. ground; spank, ignore) Attitude toward spanking if child seriously misbehaving At what age start spanking; how many time spank child in past week
Abuse	
Non-payment	
Miscellaneous	
General Comments	In 1997, with funding from the National Institute of Child Health and Human Development (NICHD), the PSID will collect information on 0-12 year old children from the children and their parents. The PSID is conducted at the Survey Research Center, Institute for Social Research, University of Michigan. Different surveys used for primary caregiver (generally the mother), partner of the primary caregiver, and for fathers who live outside the target child's household. Most questions regarding father involvement repeated on all surveys.

Note: Table based on Questionnaires dated October, 1996.

BEST COPY AVAILABLE

Table 4. Marital Instability Over the Life Course, 1980-1988

Involvement Measures	***Description***
Positive Involvement:	
Presence/Absence	Relationship to respondent (male respondent's applicable) Children not living with respondent; distance lives from respondent
Communication	Number of days since spoke to child not living in household
Teaching	Able to handle children after divorce
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	Variety of questions Wished did not live with children; can handle living apart from children Closeness to child from previous marriage; closeness of spouse's child from previous marriage Satisfaction with children Quality of relation with children Attitude toward children leaving home; attitude toward children returning home
Protection	
Supporting Emotionally	

Involvement Measures	***Description***
Positive Involvement:	
Negative Involvement:	
Conflict	Child gives respondent problems; child from previous marriage gives respondent problems; child *from spouses previous marriage gives respondent* problems How much problem are stepchildren Any children give more than usual problems
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	
General Comments	Respondents: 821 males, 1212 females 3 waves

Table 5. National Survey of Families and Households, 1988

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Household composition information Distance father lives from child Father still living
Communication	In past year, how often child talk/get letter from father (not in household) Time with child having private talks
Teaching	How often respondent yells at child Allows child to set rules Expectations of children regarding spending money
Monitoring	5 questions about leaving child alone at various times (after school, overnight) Know where child is when away from home Restrict amount of TV; types of programs Remind child to do chores How important for child to follow family rules; to always do what respondent asks Time spent at PTA/other school activities
Thought Processes	Child easy/difficult to raise
Errands	
Caregiving	Number of hours per day take care of child
Child-Related Maintenance	
Shared Interests	
Availability	In past year, how often child see father Some questions on visitation agreement Questions about time spent: at religious youth groups; at team sports/youth athletic clubs; at community youth groups
Planning	
Shared Activities	Different questions for children in different age groups, including children over 18 years e.g., time spent with child on outing away from home; playing together at home; with reading or homework; eating breakfast with child; eating lunch with child
Providing	Help child (over 18 years) with: transportation; home/car repairs; housework

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement:	
Affection	How often respondent praises child How often respondent hugs/cuddles child Rate relationship with each child (very poor--excellent) How much influence respondent has on child Number of days had good time with child
Protection	
Supporting Emotionally	Help child (over 18 years) with advice/moral support
Negative Involvement:	
Conflict	How often argue or fight with child last month How handled disagreement: keep opinions to self; discuss calmly; shout; hit/throw things How many arguments led to: becoming physical; respondent or child hitting/shoving/throwing things; respondent or child getting cut/bruised/injured Series of 10 questions about how many times in last year respondent argued or disagreed with child on variety of items, e.g., with how she/he dresses; about her/his friends; about her/his sexual behavior
Harsh Punishment	How often respondent slaps/spanks child
Abuse	
Non-Payment	
Miscellaneous	Section of 8 questions about raising step-children (e.g. easier to love than own children; easier to discipline than own children)
General Comments	Both male and female respondents

Table 6. National Survey of Children

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Type of father (in household) Biological father dead or living elsewhere
Communication	
Teaching	When child good, dad: takes child out someplace; buys special things[c] When child bad, dad: makes fun of child; yells at child; acts if no love[c] When child bad: dad talks to child; sends to room; takes away privileges[c] Father is firm[c]
Monitoring	Who attends school conference Father gives clear and consistent rules[c] Father wants to know what child is doing[c]
Thought Processes	
Errands	
Caregiving	Questions asked to child about who makes decisions about child's: clothes; friends; how late child can stay out; amount TV child can watch; religious training; seeing homework is done; discipline Questions asked to parent about who makes decisions about child's clothes; how child spends money; friends; how late child can stay out; how much allowance child gets; how much TV child can watch; child's religious training
Child-Related Maintenance	
Shared Interests	
Availability	Father spend enough time with you (asked in all waves)[c]
Planning	
Shared Activities	
Providing	

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement:	
Affection	When child good: dad says he's pleased; kisses/hugs [c] Amount of affection from dad [c] How close feel to your father; to your stepfather [c] Rate father/youth relationship [p] Want to be like father as adult [c] Father loves child/ interested in child [c]
Protection	
Supporting Emotionally	Father trusts even when not around [c] Father encourages to do best [c] Father appreciates child's accomplishments [c]
Negative Involvement:	
Conflict	How much child argue with father [c]
Harsh Punishment	When child bad, dad spanks/slaps; ever hurt by dad spank/slap [c]
Abuse	
Non-Payment	
Miscellaneous	Asks a lot of same questions to child about father and about outside parent
General Comments	3 waves Parent respondent: 1366=mom/mom substitute, 57=dad/dad substitute

Note:

[p] Parent responded to question

[c] Child responded to question

Table 7. 1966-72 Baltimore Study of Unplanned Teen Parenthood

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Marital Status (all waves) Marry baby's father Why some/no chance to marry baby's father in future Does father of child currently live in household
Communication	
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	Is father satisfied/would change how raise child; respondent or father make important decisions about child
Child-Related Maintenance	
Shared Interests	
Availability	Baby's father visits baby Does father spend time with child; number of hours father (step) spent weekly; respondent feel father (step) spends enough time with child; why father finds difficult to spend enough time; children spend time with father in past year; frequency children/father spend time together
Planning	
Shared Activities	Frequency child plays with father
Providing	Does father pay for child expenses; how much; non-financial assistance from father of child
Affection	Father's enjoyment of child; child's enjoyment of father; how much does father enjoy play with child; how much does child enjoy play with father
Protection	
Supporting Emotionally	

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	Description of how child's father felt at pregnancy, number of children father wants
General Comments	Four waves of interviews with 404 women who were pregnant (and under age 18) at the time of the first interview in 1966 and registered at the Sinai Hospital prenatal clinic in Baltimore

Table 8. National Health Interview Survey on Child Health, 1988

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Type of family; identification of child's father figure in household; relationship of sample child to father figure in household Has child ever lived with biological dad for at least 4 months; month/year last lived with biological father; duration since child last lived with biological father
Communication	
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	When (how often) does child see father
Planning	
Shared Activities	
Providing	
Affection	
Protection	
Supporting Emotionally	
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Miscellaneous	
General Comments	Information collected for 17,110 children 0-17 years. Respondent was child's mother 80% of time (biological mother=12,946, biological father=1,516).

Table 9. 1973 Madison, Wisconsin Study of Premarital Sexuality Among Young People: Student and Non-student Samples

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	
Communication	How much your father understands you Following questions related to father's communication on sexual behavior/premarital sex: Evaluate sex education from your father; father feel acceptable--fondle breasts; father feel acceptable--fondle genitals; father feel acceptable--sexual intercourse; source moral attitude (sex); source knowledge sex physiology; source information about sex mechanics; contraceptive knowledge; how father feel if you live with someone unmarried; how father think if you are unwed and pregnant; how father think if you impregnated a girl
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	How close are you to your father Influence father have on your decision How often father display affection toward you
Protection	
Supporting Emotionally	

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement:	
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	
General Comments	Identical surveys administered to two samples: 1)unmarried undergraduate students aged 16 to 29 years--432 males and 431 females; 2)non-students aged 18-23 who resided in Madison, Wisconsin but who were not students at the university--220 males and 293 females

Table 10. High School and Beyond, 1980-1983

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Father or other male guardian in household
Communication	
Teaching	Father plans school program; father's opinion about plans after high school
Monitoring	Father monitors school work
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	
Protection	
Supporting Emotionally	
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	
General Comments	Base survey and 3 follow-ups 2 cohorts: Sophomore, Senior

BEST COPY AVAILABLE

Table 11. National Education Longitudinal Study: 1988-1994

Involvement Measures	***Description***
Positive Involvement	
Presence/Absence	Father, Stepfather, or other adult male in household
Communication	
Teaching	How far wants child to go in school; plan high school program; opinion about what to do after high school
Monitoring	Father home when child returns from school
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	Get along with father
Protection	
Supporting Emotionally	
Negative Involvement	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	
General Comments	Base year through 3rd follow-up 8th grade cohort

Table 12. National Family Violence Study, 1975 and 1985

Involvement Measures	*Description*
Positive Involvement	
Presence/Absence	Male head always present in relevant questions (respondent needs to be a male for questions to be applicable)
Communication	
Teaching	In past year, respondent ever (and number of times): discuss issue calmly with child; get information to back up side This same set of questions are then asked with respect to how child deals with respondent
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	
Protection	
Supporting Emotionally	
Negative Involvement	
Conflict	19 questions about conflict resolution when disagreement occurred e.g. When disagreement, parent ever: discuss issue calmly; stomped out of room; beat up child This same set of questions are then asked with respect to how child deals with respondent
Harsh Punishment	In past year husband use physical punishment on child, number of times used Also asks if respondent's father used physical punishment; number of times used

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement	
Abuse	In past year, respondent ever (and number of times) beat up child; kicked/bit/hit with fist, hit/tried to hit child with object, burned/scalded child, threatened child with knife/gun This same set of question asked with respect to how child deals with respondent
Non-Payment	
Miscellaneous	
General Comments	Respondents include both males and females 1 referent child Similar survey in 1975 and 1985

Table 13. Stanford Child Custody Study, 1984-1990

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Child's residential custody (de facto)
Communication	Variety of questions regarding talking to father on phone How easy to chat with child
Teaching	How child acts when corrected; child comply when asked to do something Child easier to raise after divorce
Monitoring	Who supervises homework Keep track of where child is Regular times for bed/meals at dad's; consistent with demands of child
Thought Processes	
Errands	
Caregiving	Who is primary caretaker Who shops for children's everyday clothes; takes care of checkups
Child-Related Maintenance	
Shared Interests	
Availability	Many detailed questions e.g., Number of overnights with father (last week; unscheduled; usual in two week period); amount of time spent with father in summer; amount of time child wants to spend with father Questions related to the visitation schedule (when visitation occurs; father want to change schedule; child want to change schedule) Factors affecting time spent with children (4 in wave 1, 6 in wave 2, 8 in wave 3), e.g., new relationship; new residence; dad lives too far away; no regular visitation hours
Planning	
Shared Activities	
Providing	

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement:	
Affection	Involvement (high--low) with child before separation; since separation; currently How is relationship with child Patience with child (easy--difficult)
Protection	
Supporting Emotionally	
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	Impact of dad's missed child payments on relationship
Miscellaneous	
General Comments	3 waves Study of post-separation child custody arrangements in sample of 1,124 families in two California counties Same question asked to mother and father

Table 14. 1990 Survey of Parents and Children

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Biological father not in household; still living [c]
Communication	
Teaching	How often wish parent more strict How much father (or male parent) makes you follow rules Parent answered series of 15 hypothetical questions (e.g., Amount of discipline if child: did not turn in homework; got drunk; used drugs)
Monitoring	Talk to teacher about school progress [p] Parent answered whether attended PTA meeting/special school meeting in past year
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	Time Spent with father not living in household[p] Time spent with biological father (past 5 years; past year); enough time with [c] Parent answered 4 questions, e.g., In past year worked with youth group/sports team/club
Planning	
Shared Activities	10 questions about a variety of activities, e.g., attend religious services together; play sports games together [p] How often father miss important events/activities; how often stepfather miss important events/activities
Providing	

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement:	
Affection	All questions asked to child Relationship with respondent Father special adult in life/cares about you; stepfather/foster father special adult in life/cares about you Look up/admire/would like to be like father; look up/admire/would like to be like stepfather/foster father Think father let you down; think stepfather/foster father let you down
Protection	
Supporting Emotionally	Father/biological father respects ideas/opinions
Negative Involvement:	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	3 questions asked to parent about involvement in child/parenting information group, e.g., attend class/talk about child rearing
General Comments	Respondents: 611 male, 1127 females Includes questions asked to parent and to child

Notes:

[P] Question asked to parent

[C] Question asked to child

Table 15. National Longitudinal Study of Adolescent Health, Wave 1

Involvement Measures	*Description*
Positive Involvement:	
Presence/Absence	Know anything about biological father; he still living; how old were you when he died; did you ever live with him; how old were you when you last lived with him; how many years had you been living with him at that point In what year did child most recently live with biological father Ever a period of at least 6 months when child did not live with respondent; what age was child
Communication	In last 12 months, how often talked to father (not in household) in person or on the telephone, or received a letter from him In past 4 weeks, have you done the following with your biological father/adoptive father/stepfather/foster father/ etc.: talked about someone you're dating, or a party you went to; had a talk about a personal problem you were having; talked about other things you're doing in school You are satisfied with the way your father and you communicate with each other Respondent just does not understand child It would embarrass child to talk to respondent about sex and birth control Respondent talked with child about having sex and negative impact if he got someone/she got pregnant; the dangers of STDs; neg impact on social life; moral issues of not having sex How much respondent talk to child about birth control; about sex

BEST COPY AVAILABLE

Involvement Measures	***Description***
Positive Involvement:	
Teaching	In past 4 weeks, have you done the following with your father biological father/adoptive father/stepfather/foster father/ etc.: gone to a religious service or church-related event; talked about your school work or grades
	On a scale of 1 to 5, how disappointed would resident father be if you did not graduate from college; if you did not graduate from high school
	In past week, has respondent and child talked about child's school work or grades; about other things child is doing in school
	What is most important item that child could be following high school
	How disappointed would respondent be if child did not graduate from college
	Child and respondent make decisions about child's life together
	Respondent doesn't know enough about sex and birth control to talk to child about them; it would be difficult for respondent to explain these things to child; don't need to talk about these things since child will get information elsewhere; talking about this subject would encourage child to have sex
Monitoring	How would your father feel about your having sex at this time in your life; about your having sexual intercourse with someone who was special to you and whom you knew well; about your using birth control at this time in your life
	Respondent disapproves of child having sex at this time in child's life; would not mind child having sex with a steady friend; respondent recommended a specific method of birth control to child
	Set of questions regarding child's best friend: has respondent met friend; know what school friend goes to; met this friend's parents; what kind of influence is friend
	Similar set of questions regarding child's special friend (girlfriend/boyfriend)
	How many parents of child's friends has respondent talked to in last 4 weeks
	What time does child have to go to bed on week nights
	Has respondent talked with any teacher about school work this school year

Involvement Measures	*Description*
Positive Involvement:	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	In last 12 months, how often have you stayed overnight with father (not in household) How often is resident father at home: when you leave for school; when you return from school, when you go to bed During school year, has respondent participated in school fund-raising or done volunteer for the school Child interferes with respondent's activities
Planning	
Shared Activities	In past 4 weeks, have you done the following with your biological father/adoptive father/stepfather/foster father/ etc.: gone shopping; played a sport; gone to a movie, play, museum, or concert, or sports events; worked on a project for school
Providing	In typical month, how much support does biological father pay for child
Affection	How close do you feel to your biological father/adoptive father/stepfather/foster father/ etc.; how much do you think he cares about you Most of the time, your father is warm and loving toward you Overall, you are satisfied with your relationship with your father How often do you get along well with child
Protection	
Supporting Emotionally	How often respondent feels can trust child

BEST COPY AVAILABLE

Involvement Measures	*Description*
Positive Involvement:	
Negative Involvement:	
Conflict	In past 4 weeks, have you had a serious argument about your behavior with your biological father/adoptive father/stepfather/foster father/ etc.
Harsh Punishment	
Abuse	
Non-Payment	
Miscellaneous	Section of questions about twins (type of twins; how alike were they at age 8; when twins young was respondent often confused about which was which; how often was father confused)
General Comments	Study was supported by grant from the National Institute of Child Health and Human Development Information in table based on Codebooks developed by Carolina Population Center, University of North Carolina at Chapel Hill, February 1997

APPENDIX K

NONRESIDENT FATHERS: WHAT WE KNOW AND WHAT'S LEFT TO LEARN?

by Elaine Sorensen
The Urban Institute

Support for this research was provided by the Ford Foundation. The views expressed in this paper are those of the author and do not necessarily reflect the views of the Institute or its funders.

Introduction

For this first time, in 1980, the Current Population Survey (CPS) asked men who had a previous marriage whether they had children living elsewhere and whether they provided financial support to those children as part of its supplement on marital and fertility histories. Researchers found, however, that nonresident fathers with a prior marriage were seriously underrepresented in these data and that those who self-identified as nonresident fathers were significantly more likely to report that they provided financial support to their children living elsewhere than custodial mothers reported receiving it (Cherlin, Griffith and McCarthy 1983).

The 1987/88 National Survey of Families and Households also included detailed questions about fertility and marital histories of male and female adults and asked all parents whether they had children who lived elsewhere most of the time. Again, researchers found that nonresident fathers were seriously underrepresented in these data and that nonresident fathers who self-identified as such tended to report that they paid child support (Seltzer and Brandreth 1994).

Based on this experience, most researchers concluded that scarce resources for survey research should be spent on interviewing and analyzing custodial mothers. Since 1987, no survey of the entire adult population has asked men whether they have children living elsewhere. Instead, both the CPS and SIPP have continued to collect information about child support from custodial mothers. The SIPP asks men about their fertility, but it does not ask them where their children live. Research on nonresident fathers has certainly continued, but it has had to rely on subnational (or subgroup) data to shed light on this issue.

Since the early 1980s, child support has become a major policy issue. It is now viewed as a key element of our income security policy for low-income families. The federal government no longer guarantees cash assistance to poor single mother families; welfare is considered transitional support. These families are expected to eventually rely on their own earnings and child support. Yet we do not have a nationally representative survey that can identify nonresident fathers of poor children, which means we have no reliable estimates of their ability to pay child support. Without this information, policies will continue to be made on incomplete, and possibly misleading data. Thus, it is time to develop a methodology for large, national surveys that will produce accurate information about nonresident fathers.

The purpose of this paper is to describe what we do and do not know about nonresident fathers' ability to pay child support based on two national surveys that try to identify this population--the National Survey of Families and Households (NSFH) and the Survey of Income and Program Participation (SIPP). Both surveys are nationally representative of the civilian, noninstitutionalized adult population. Other national surveys may identify certain subgroups of nonresident fathers, such as young nonresident fathers, but I am unaware of any other national survey that attempts to canvas the entire (noninstitutionalized) population of nonresident fathers.

How Are Nonresident Fathers Identified in National Surveys?

To date, researchers have taken both direct and indirect approaches to identifying nonresident fathers in national surveys. By asking the following questions of all adult males, the NSFH permits a direct approach to identifying nonresident fathers: (1) How many children have you ever fathered? For those who say they have fathered a child, they ask: (2) Do you have any biological children age 18 or younger who do not live in this household at least half of the time? In contrast, the SIPP asks women and men about their fertility but it only asks mothers about the living situations of their children who live elsewhere. It does not ask these questions of fathers. Thus, I have developed an indirect approach to identifying nonresident fathers in the SIPP. For payers of child support, I use a question in the SIPP that asks respondents whether they provide financial support for children living elsewhere. For nonpayers, I determine which fathers report having fathered more children than currently live with them. Unfortunately, I cannot discern the ages of the children who live outside of the household. Thus, I impose a series of age and marital history restrictions on the definition of a nonresident father to more accurately capture this population.[13]

Two other important differences between the SIPP and NSFH should also be mentioned. First, the SIPP allows proxy respondents to answer the questions for an interviewee, but the NSFH does not. Second, the SIPP imputes answers to many questions if a respondent does not answer it, but the NSFH does not. However, the SIPP does not impute male fertility and includes flags that indicate if an answer is imputed. In my indirect method of identifying nonresident fathers, I do not use imputed values.

These two surveys yield similar fertility information about men (age 19 years or older) despite their different survey designs. The NSFH finds that 65 percent of men had fathered a child, while the SIPP finds that 67 percent of men had fathered a child (see Table 1). In addition, the number of births per adult male are quite similar in the NSFH and SIPP. In the NSFH, adult males report 1.78 births/male; in the SIPP, adult males report 1.7 births/male.

---

[13] For further details regarding these restrictions, see Elaine Sorensen, "A National Profile of Nonresident Fathers and their Ability to Pay Child Support." Urban Institute Working Paper, 1997.

In contrast, the NSFH and SIPP yield significantly different percentages of men as nonresident fathers. In the SIPP, 8.6 percent of men were identified as nonresident fathers, or 7.3 million men, but only 6.9 percent of men in the NSFH were identified as such, or 5.6 million men.[14]

Table 1 also shows that both surveys underrepresent fathers. In the NSFH, 14 percent fewer men than women reported that they had been a (biological) parent, while 10 percent fewer men than women reported that they had been a (biological) parent in the SIPP.[15] Men also report fewer births than women. In the NSFH, men report 84 percent as many births as women; in the SIPP, they report 89 percent as many births as women.

In both the NSFH and the SIPP, there are significantly smaller numbers of nonresident fathers than custodial mothers. In the NSFH, there are 61 percent as many nonresident fathers as custodial mothers; in the SIPP, there are 74 percent as many nonresident fathers as custodial mothers.[16]

What Do We Know About Nonresident Fathers Who are Identified in National Surveys?

Although the SIPP identifies more men as nonresident fathers than the NSFH, both surveys provide remarkably similar demographic profiles of nonresident fathers identified in national surveys. As Table 2 shows, nonresident fathers in these two surveys are predominantly white, ever-married, in their thirties, with at least a high school education.[17]

The only characteristic in which the NSFH and SIPP differ substantially is the extent to which nonresident fathers pay child support. In the NSFH, 78 percent of nonresident fathers report that they provided financial support for their children living elsewhere, but only 55 percent of nonresident fathers in the SIPP report that they paid child support. The questions about paying child support are different in the two surveys, which may lead to this discrepancy. The NSFH asks nonresident fathers with a child support order how much they are suppose to pay and then asks whether any payments were missed. For nonresident fathers without an order, the question in the NSFH is similar to the question asked in the SIPP. Both of these questions ask nonresident fathers whether they provide any financial support for their children living elsewhere.

---

[14] Nonresident fathers in the NSFH are limited to those whose focal child is under 18 and lives with the mother.

[15] The nonresponse rates to the fertility question are not that different by sex in the NSFH and SIPP. In the NSFH, only one person (a woman) did not answer the fertility question; in the SIPP, about 5 percent of women and men did not respond to the fertility question.

[16] Custodial mothers in the NSFH and the SIPP are limited to those who indicate that at least one of their children living with them is under 18 years old.

[17] Neither of these descriptive profiles has been altered to adjust for the under representation of nonresident fathers in these surveys. I have simply applied the population weight that is supplied by the NSFH and SIPP to the individual records.

Although nonresident fathers in the NSFH are more likely than nonresident fathers in the SIPP to report that they pay child support, the former report spending about the same proportion of their income on child support as do the latter. The average nonresident father in the NSFH spends 8.6 percent of his income on child support, while the average nonresident father in the SIPP spends 8.0 percent of his income on child support. Both figures are considerably less than the amount that state guidelines suggest nonresident fathers should pay in child support. Thus, both surveys indicate that the *average* nonresident father could pay more in child support.

On the other hand, both surveys show that a sizable minority of nonresident fathers have low incomes. In the NSFH and the SIPP, 22 percent of nonresident fathers have personal incomes after paying child support that fall below 150 percent of the poverty threshold for an individual. I have used this definition of low income rather than the official definition of poverty that relies on family income, because the NSFH does not collect family income for all respondents. It should also be noted that child support guidelines are based on nonresident parents' personal income rather than family income, which is another reason for focusing on personal income. I use the poverty threshold for a single person because it provides a measure of the amount of income an individual needs to meet his basic needs (not because I think all nonresident fathers live alone).

Table 2 also shows that 14 to 30 percent of nonresident fathers who report that they do not pay child support also report having high incomes (which I define as above 150 percent of the poverty threshold for a single person). Thus, I find a large minority of nonresident fathers who are "deadbeat dads"-- they can afford to pay child support but do not.

How Many Nonresident Fathers are Missing in National Surveys?

To ascertain the extent to which nonresident fathers are underrepresented in these surveys, I compared the number of children that nonresident fathers report living elsewhere to that reported by custodial mothers. Custodial mothers' reports are used as a reference point because it is generally believed that their reports of children eligible for child support are more accurate than those of nonresident fathers (Cherlin et al. 1983). In addition, the NSFH and SIPP do not survey the institutionalized population. Because some nonresident fathers are institutionalized and custodial mothers are not, custodial mothers should provide a more accurate report of child support-eligible children.

Custodial mothers are identified in the NSFH and SIPP using questions that ask parents whether any of their children who live with them have a parent living elsewhere.[18] The characteristics of custodial mothers in the 1987/88 NSFH and the 1990 SIPP are similar to those in the 1990 Current Population Survey-Child Support Supplement (CPS-CSS)--which provides the more commonly used data to describe custodial mothers (U.S. Bureau of the Census 1995).

In both surveys, nonresident fathers report having fathered fewer children who live elsewhere than those reported by custodial mothers. In the NSFH, nonresident fathers report a total of 8.6 million children living elsewhere, while custodial mothers report that they have 16.4 million children with a father living elsewhere. In the SIPP, nonresident fathers report a total of 13 million children living elsewhere and custodial mothers report 16.6 million children with a father living elsewhere.

To ascertain how many nonresident fathers are missing in these surveys, I divide the deficit of children reported by nonresident fathers when compared to custodial mothers by the average number of children reported by custodial mothers.[19] This procedure yields 4.3 million nonresident fathers missing in the NSFH, or 44 percent of all nonresident fathers. In the SIPP, 2.1 million nonresident fathers are missing, representing 22 percent of the population of nonresident fathers.

Why are Nonresident Fathers Underrepresented in National Surveys?

There are three basic reasons why nonresident fathers are underrepresented in these surveys. First, both surveys are restricted to individuals who reside in households, meaning that individuals who live in group quarters, such as correctional institutions or military barracks, are not interviewed. About 1.1 million men between ages 19 to 54 were institutionalized in 1987 and 1990 and about 1.5 million men (ages 19 to 54) lived in other group quarters in 1987 and 1990 (U.S. Bureau of the Census 1992, 1988). In other words, about 2.6 million men between the ages of 19 and 54 were intentionally missed by the NSFH and the SIPP.[20]

---

[18] All "custodial mothers" have physical custody of their children, but some of them share legal custody with the father.

[19] I use the average number of children reported by custodial mothers because other research has shown that men underreport their fertility. See, for example, Bachu 1996.

The second reason nonresident fathers are underrepresented in these surveys is that they reflect the Census undercount of certain subpopulations, especially young black males. For example, it is estimated that the 1990 Census undercounted black males in their early thirties by 14% (Robinson et al. 1993). This undercount is incorporated into the NSFH and the SIPP because both surveys rely on the Census to develop their survey weights. About 2.2 million men between the ages of 19 and 54 were undercounted in 1987 and 1990 (U.S. Bureau of the Census 1988; Robinson et al. 1993).

The third reason that nonresident fathers are underrepresented in the NSFH and the SIPP is because men are significantly less likely to report that they have children living elsewhere than are women likely to report that they have children living with them with a father living elsewhere. As shown in Table 1, only 6.9 percent of adult men in the NSFH report that they have children living elsewhere (with the mother), while 10.3 percent of adult women report that they have children living with them who have a father living elsewhere. Similarly, in the SIPP, only 8.6 percent of adult men, but 10.6 percent of adult women say that they have child-support eligible children.

To estimate how many nonresident fathers are missed by the NSFH and the SIPP for these reasons, I first examined the Survey of Inmates in State Correctional Facilities, conducted by the U.S. Department of Justice in 1991. These data show that 42 percent of men in state prisons in 1991 had minor children and were not currently married. Since most institutionalized men (between 19 and 54) are in correctional institutions, I applied this figure (42 percent) to the adult male institutionalized population in 1987 and 1990 to estimate the number of nonresident fathers who were institutionalized at the time of the NSFH and SIPP surveys.[21] Using this procedure, I estimate that about 500,000 nonresident fathers were institutionalized in 1987 and 1990 (see Table 3).

Since I have no information on the undercounted population, I used the same figure that I used for the institutionalized population (42 percent) to estimate the number of nonresident fathers who were undercounted by the NSFH and the SIPP. This yielded about 900,000 nonresident fathers who are undercounted in 1987 and 1990 (Table 3).

---

[20] I examine 19 to 54 year olds to limit the population in question to those who are most likely to be nonresident fathers. I impose the lower age limit because the NSFH only interviews adult men who are at least 19 years old.

[21] See Garfinkel et al. 1997 for a similar approach to estimating the number of nonresident fathers in prison.

To estimate the number of nonresident fathers in 1987 and 1990 who lived in other group quarters (most of whom are in the military or at college), I assumed that men (19 to 54) who lived in other group quarters in 1987 and 1990 were just as likely to be nonresident fathers as men (19 to 54) in the NSFH and the SIPP. Based on this assumption, I estimate that 149,094 nonresident fathers were living in group quarters in 1987 and 183,675 were living in group quarters in 1990. Thus, a total of about 1.5 million nonresident fathers were not interviewed by the NSFH or the SIPP either because they were undercounted, institutionalized, or living in other group quarters.

The number of nonresident fathers who are underreporting their children living elsewhere is estimated as the residual category. I subtract the estimated number of nonresident fathers who were not interviewed by the NSFH or the SIPP because they were undercounted, institutionalized, or living in other group quarters from the total number of nonresident fathers who are estimated to be missing in these surveys. Using this procedure, I estimate that 2.8 million nonresident fathers are underreporting their children living elsewhere in the NSFH, and about 500,000 nonresident fathers are underreporting their children living elsewhere in the SIPP (Table 3). In other words, 65 percent of the underrepresentation of nonresident fathers in the NSFH is caused by underreporting, but only 25 percent of the underrepresentation of nonresident fathers in the SIPP is caused by underreporting.

Where Should Research Go From Here on Nonresident Fathers and Their Ability to Pay Child Support?

At this point, 22 to 44 percent of nonresident fathers are "missing" in national surveys. Given the magnitude of the problem, I make the following recommendations to improve our understanding of nonresident fathers and their ability to pay child support.

First, we need a description of nonresident fathers who are not interviewed in national surveys, most of whom are undercounted. One of the key reasons individuals are undercounted by household surveys is because these surveys are limited to individuals who are "usual residents." The U.S. Bureau of the Census conducted a survey in 1993 of 999 households, called the Living Situations Survey, which asked a series of probing questions about who is associated with each household. They found that these additional probes resulted in a 38 percent increase in the number of persons per household and an 5 percent increase in the number of usual residents (Martin undated). This survey asked some demographic questions, but a more thorough analysis of these questions needs to be conducted. For example, how many households would have been typed single-mother households according to the simple "usual residence" question, but in fact had a father present at least some of the time?

A subset of these roster probes should be added to the Current Population Survey (CPS) and the SIPP, the two largest government surveys that are fielded on a regular basis and include detailed measures of income--a critical variable when analyzing nonresident fathers. Before these probes are added, however, further research needs to be conducted to ascertain whether these probes increase the number of usual residents, which probes are the most useful, and whether these probes affect the response rate to surveys such as the CPS and SIPP.

For individuals who are identified by these roster probes who are not usual residents, key information (e.g., sex and age) should be obtained at the time of the initial interview. In addition, follow up interviews with a subset of these individuals should be conducted to ascertain whether they are working, their other income sources, and whether they have children. Without this additional information, we will never have a reasonable profile of nonresident fathers and their ability to pay child support.

We also need to do a better job of identifying nonresident fathers who are interviewed in national surveys but who do not self identify themselves as nonresident fathers. At this point, little effort has gone into testing different approaches that may improve response rates among men to questions about fertility and children living elsewhere. Does the wording of these questions matter? Does the order of the questions matter? Does a context for these questions help improve response rates? Does it matter whether a proxy is used to answer these questions?

The U.S. Census Bureau should experiment with question design regarding nonresident fathers and the payment of child support. The SIPP already has a fertility supplement that asks fertility questions of both men and women. As I showed above, male fertility is not that different from female fertility in the SIPP. As currently designed, the SIPP goes on to ask mothers (but not fathers) about the living situations of their oldest and youngest child. These questions should be tested on a sample of fathers. The CPS already tested questions about child support payments in the 1996 CPS-Child Support Supplement. The results of these questions should be examined.

Although many researchers recommend that subnational studies of nonresident fathers be undertaken to learn more about their attitudes and behaviors, these studies will *not* provide a national profile of nonresident fathers and their ability to pay child support, which is critical to policy formation. Furthermore, administrative data on nonresident fathers is insufficient because they do not include the entire universe of nonresident fathers.

The only way to produce reasonably accurate estimates of nonresident fathers' ability to pay child support is to improve upon a large, on-going national survey. The

SIPP and CPS are the most likely candidates because they already have questions that identify custodial mothers and are currently viewed as the most reliable source of information on child support.

References

Bachu, Amara. 1996. Fertility of American Men. U.S. Bureau of the Census, Population Division Working Paper No. 14.

Cherlin, Andrew, Jeanne Griffith, and James McCarthy. 1983. A Note on Maritally-Disrupted Men's Reports of Child Support in the June 1980 Current Population Survey. *Demography* 20 (3): 385-389.

Garfinkel, Irwin, Sara S. McLanahan, and Thomas L. Hanson. 1997. "A Patchwork Portrait of Nonresident Fathers." Unpublished paper, March.

Martin, Betsy. "Features of Living Situation Survey." (Undated).

Robinson, J. Gregory, Bashir Ahmed, Prithwis das Bupta, and Karen A. Woodrow. 1993. "Estimation of Population Coverage in the 1990 United States Census Based on Demographic Analysis." *Journal of the American Statistical Association* 88 (September): 1061-1079.

Seltzer, Judith and Yvonne Brandreth. 1994. "What Fathers Say About Involvement with Children After Separation." *Journal of Family Issues* 15 (March): 49-77.

Sorensen, Elaine. 1997. "A National Profile of Nonresident Fathers and their Ability to Pay Child Support." Urban Institute Working Paper, April.

U.S. Bureau of the Census. 1995. *Child Support and Alimony: 1991.* Current Population Reports, Series P-60, No. 187. Washington, D.C.: U.S. Government Printing Office.

U.S. Bureau of the Census. 1992. *General Population Characteristics: United States.* 1990 CP-1-1. Washington, DC: GPO.

U.S. Bureau of the Census. 1988. *United States Population Estimates, by Age, Sex, and Race: 1980 to 1987.* Series P-25, No. 1022. Washington, DC: GPO.

Table 1: Estimates of Parenthood from the NSFH (1987/88) and the SIPP (1990)

	Men (19+)		Women (19+)	
	NSFH	SIPP	NSFH	SIPP
Total Number of Men/Women	80,998,000	84,834,000	90,469,000	84,834,000
% Who Report Being a Father/Mother	65.2%	67.3%	75.9%	74.8%
Births per Adult	1.78	1.7	2.13	1.93
% Who Report Being a Nonresident Father/Custodial Mother	6.9%	8.6%	10.3%	10.6%

Source: 1987/88 National Survey of Families and Households (NSFH), 1990 Survey of Income and Program Participation (SIPP)

Table 2: **Characteristics of Nonresident Fathers Who Are Identified in the NSFH (1987/88) and SIPP (1990)**

	NSFH Nonresident Fathers	SIPP Nonresident Fathers
Age		
19-29	20.7%	24.5%
30-39	47.9	49.0
40+	31.4	26.5
Mean (in years)	36.1	35.2
Race		
Hispanic	11.1%	11.9%
White	65.6	67.8
Black	21.6	17.3
Other	1.6	2.9
Marital Status		
Currently Married	44.4%	49.6%
Separated	10.6	9.0
Divorced	31.0	27.5
Widowed	0.4	0.9
Never Married	13.6	12.2
Education		
Not a High School Graduate	18.8%	21.4%
High School Graduate	38.8	42.1
Some Post-Secondary Education	42.4	36.5
Mean (in years)	12.6	12.3
Payment Status		
Nonpayer	21.7%	45.2%
Payer	78.3	54.8
Income and Payment Status		
Low Income	21.5%	22.2%
High Income Nonpayers	14.4	30.2
High Income Payers	64.1	47.6
Mean % of Personal Income Paid Towards Child Support	8.6%	8.0%

Source: 1987/88 National Survey of Families and Households (NSFH), 1990 Survey of Income and Program Participation (SIPP)

Note: Low Income is defined as having personal income (after paying child support) below 150% of the poverty threshold for a single person

Table 3: Factors Contributing to the Underrepresentation of Nonresident Fathers in the NSFH and the SIPP

	NSFH	SIPP
Total Underrepresentation	4,355,279	2,077,387
Total Undercount*	2,200,000	2,265,800
% Who are Nonresident Fathers	42%	42%
Nonresident Fathers Who are Undercounted	920,700	930,998
Total Institutionalized*	1,114,006	1,141,589
% Who are Nonresident Fathers	42%	42%
Nonresident Fathers Who are Institutionalized	462,197	473,464
Total Other Group Quarters*	1,538,245	1,550,508
% Who are Nonresident Fathers	10%	12%
Nonresident Fathers Who are in Other Group Quarters	149,094	183,675
Total Number of Men Who are Underreporting That They are Nonresident Fathers	2,823,287	522,890

Source: 1987/88 NSFH, 1990 SIPP; U.S. Census Bureau 1988, 1992; Robinson et al 1993

*Total Undercount, Institutionalized, and Other Group Quarters are limited to men between the ages of 19 and 54 to eliminate older men who are probably not nonresident fathers.

APPENDIX L

NEW DIRECTIONS FOR EXPLORING FATHERS' ATTACHMENT TO HOUSEHOLDS

Elizabeth Martin and Paul Siegel, Bureau of the Census

Introduction

Errors made by respondents or interviewers in listing persons on household rosters are an important source of coverage errors in censuses and surveys. Within-household omissions account for about one-third of all census omissions, and are higher for males and minorities, and nonrelatives within households (Hogan, 1992; Ellis, 1994; Fay, 1989). Despite the evidence, the household roster has not been approached systematically as a survey measurement problem. Most surveys lack standardized questions and procedures to help interviewers decide whether to list persons whose residence is ambiguous, leaving these determinations to the interviewer's discretion and skill.

Research suggests several reasons why respondents may erroneously omit persons from household rosters. Persons may be concealed due to concerns about how the information is used by Government or others (Hainer et al., 1988; de la Puente, 1993; Tourangeau et al., forthcoming). Complicated living situations, transience, and tenuous attachments to households make it difficult to determine who should be counted as a household member. Mobility among multiple households contributes to residential ambiguity (Bates and Gerber, 1994). In ambiguous situations, respondents' judgments are influenced by intentions and agreements, financial contributions and permanence of attachment, and other criteria which may conflict with official residency rules (Gerber, 1990; 1994). Arcane terminology and counterintuitive instructions may confuse or mislead respondents (Gerber, 1994; Gerber, Wellens, and Keeley, 1996). Household respondents may lack information about persons in their household, and may assume that part-time residents have a home elsewhere, when they don't. There may be disagreements within households about who belongs there and who doesn't (Hainer, 1987).

Rostering Strategy

In order to improve the coverage of tenuously attached persons, Census Bureau researchers devised an experimental strategy which cast a broad net in order to identify persons with any attachment to a household, no matter how weak or tenuous. The experimental rostering strategy was implemented in the Living Situation Survey, which was designed by Census Bureau researchers and conducted by RTI in 1993.

- **Step 1** in the survey was to interview household respondents and ask extensive roster probes and cues to list all persons with any attachment to the sample households. Extensive cues and probes were used to build rosters that included all persons with any attachment to the sample households, including (for example) persons who spent a night in the housing unit during the 2 month reference period, who received mail or messages there, had a key, contributed money for rent or bills, and so on. Cues also targeted undercounted categories, such as live-in employees, boarders, foster children, etc. The probes were developed based on evidence about undercounts, as well as cognitive and anthropological research on how people think about residency issues. The intent was to include on the roster everyone who had spent time in a household during the reference period, or who had other sorts of attachment to it.

- **Step 2** was to ask the household respondent questions to determine the residence of each person on the list. For example, household respondents were asked if this was the person's usual residence, "where he/she lives and sleeps most of the time."
- **Step 3** was to follow up a subsample of the rostered persons for individual interviews.
- **Step 4** was to determine (in the individual interview) all the places respondents had stayed during the reference period, and the nature of their attachment or participation in each household (e.g., did they help with chores, contribute money for rent, food, or bills, have children of their own who stayed in the household).

This design strategy offers the potential advantage of capturing information about persons in the gray area, who might otherwise be missed entirely. It also makes it possible to identify tenuously attached persons who have children staying in a household.

Interviews were conducted in 999 households (representing a 79.5 percent response rate) oversampled from areas with high concentrations of minorities and renters. A total of 3,549 people were listed on household rosters. The weighted mean of 3.62 persons listed per housing unit in the LSS is significantly greater than the mean of 2.63 persons per occupied housing unit in the 1990 census. The added probes in the LSS were especially effective at identifying more young minority males, who were less likely to be mentioned in response to *more* standard probes (Sweet, 1994).

More probing was needed to list persons with tenuous attachments than those who were more attached. Martin (1996) finds that on average 1.06 probes were needed to list the most strongly attached individuals, compared to 4.6 probes needed to elicit reports of persons with very weak attachments to sample households.

Based on the screening questions (Step 2), about three-quarters of the persons rostered using the new, inclusive procedure were residents of the sample households, and one-quarter lived somewhere else. When nonresidents were screened out, the mean number of usual residents per housing unit in the LSS was higher than the census for all race/ethnicity categories, but was significantly higher only for the total population (2.76) and for Hispanics (Sweet, 1994).

For a small but important group of marginal residents, household respondents' reports were often inconsistent with census rules and with reports of the individuals themselves. Nine percent of the persons rostered in the LSS (excluding casual visitors) had complex living situations, and household respondents' determinations of "usual residence" agreed with census rules for only 69 percent of them (Sweet and Alberti, 1994). The LSS followed up a sample of non-casual visitors rostered in the survey, and conducted individual interviews with them (or with proxies reporting for them). Sweet and Alberti (1994) find that in 95 percent of cases, the household respondent and the individual agreed on the individual's usual residence (proxy reports for the individual were excluded from their analysis). The 5 percent who disagreed tended to have complex living situations. Potential omissions due to inconsistent assessments of household membership were significantly higher for young, minority males compared to other groups (Schwede and Ellis, 1994).

To date, research based on the Living Situation Survey points to several conclusions. First, the expanded probing resulted in larger numbers of people listed on household rosters, with evidence of increases in undercounted categories (Hispanics, as well as young, minority males). Compared to the census, there was a 38 percent increase in the number of people rostered per household, but only a 5 percent increase in the number of usual residents per household. Second, household respondent reports of who lives in a household should not be taken as unproblematic. Third, people use different criteria and in many cases make different residency determinations than would be implied by the census residency rules. Fourth, living situations which are ambiguous and fluid are particularly vulnerable to misreporting and unreliable reporting. Fifth, more probing is needed to identify marginally attached persons than is customarily done in household surveys.

Identifying Tenuously Attached Fathers

Although the Living Situation Survey was not designed to investigate fathers' attachments to households where their children lived, the survey does suggest some avenues which might be worth exploring in future applications of this methodology. Once all of the places where a respondent had stayed during the 2-3 month reference period had been identified in the individual interview, respondents were asked for each, "Did you have children of your own who stayed at (PLACE)?" Thus, the survey provides preliminary information on parents' patterns of stay in households where their children also stayed. Table 1 shows, as one would expect, that the most common pattern is a stay in only one place where the R's children were living, and that place is the respondent's usual residence. This corresponds to a situation in which the children live with the respondent, and the respondent either has no other children, or didn't stay in the other children's residence during the reference period.

This pattern accounts for about 77 percent of fathers, and 85 percent of mothers, who stayed in households in which their children lived. The second most common pattern was respondents' staying in 2 places where their children lived, one their usual residence and the other not. This pattern was more common for fathers than mothers, but accounts for a sizable fraction of both. (It is important to note that a variety of situations may give rise to this pattern, including stays in two different households in which different children reside, or a trip to a place away from home accompanied by ones children.) Finally, there are small fractions (over 2 percent) of both men and women who report visits to multiple households where their children were staying. About the same fraction of men report visiting one place where their children lived but they did not.

These data suggest that multiple and frequent (occurring within 2-3 months) stays or visits by parents in households where their children live are fairly common in comparison to what might be the expected, normative pattern of staying in a single, usual residence, where children live with the parent(s). Multiple stays are more common for fathers than for mothers, and may contribute to men being left off household rosters, since their greater mobility may lead to their being regarded as more marginal in each household (Bates and Gerber, 1998). (It also may lead to double-counting in some cases.) Note that the parents who visit their children in households which are not the parents' usual residence are likely not to be counted there under less persistent rostering practices. To some extent, this will manifest itself as children with absent fathers, and to a somewhat lesser extent, children with absent mothers.

It is important to be careful in drawing any conclusions from Table 1, since several key pieces of information are missing. The survey did not collect information to identify parents per se, nor did it collect information on the number of households in which the respondent has children living. Nor did it identify the ages of the "children," who may be adult. (Table 1 is restricted to respondents 60 years or younger, to eliminate most visits to adult children.)

Nonetheless, the fact that the survey finds substantial numbers of parents visiting and staying in households where their children live, and that stays in multiple places where children live appear relative common, suggest that expanded roster probes may be effective in identifying parents (especially fathers) who have tenuous or multiple attachments to households in which their children live.

References

Bates, N. A., and Gerber, E., (1994), "A Typology of Temporary Mobility Patterns and Reporting of Usual Residence," *Proc. of the Surv. Res. Meth. Sec.*, Am. Stat. Assoc.

Bounpane, P. A., (1991), *Census Bureau Releases Refined Estimates from Post Enumeration Survey of 1990 Census Coverage*. June 13, 1991, press release.

de la Puente, M. (1993). "Why Are People Missed or Erroneously Included by the Census: A Summary of Findings From Ethnographic Coverage Reports." *Proceedings of the Conference on Undercounted Ethnic Populations*. Washington, DC: Department of Commerce.

Ellis, Y., (1994), "Categorical Data Analysis of Census Omissions,"

Fay, R. E., (1989), "An Analysis of Within-Household Undercoverage in the Current Population Survey," *Proceedings, Annual Research Conference*. Washington, DC: Bureau of the Census.

Gerber, E. R., (1990), *Calculating Residence: A Cognitive Approach to Household Membership Among Low Income Blacks*. Unpublished report, Bureau of the Census.

Gerber, E. (1994). *The Language of Residence: Respondent Understandings and Census Rules*. Unpublished report, Bureau of the Census.

Gerber, E.R., and Bates, N.A., (1994), "Respondents' Understanding of Residence Terminology in Cognitive Research and in the Living Situation Survey," *Proceedings*, Annual Research Conference, Bureau of the Census.

Gerber, E. R., Wellens, T., and Keeley, C., (1996), ""Who Lives Here?": The Use of Vignettes in Household Roster Research," *Proceedings*, Am. Assoc. for Public Opinion Research.

Hainer, P., (1987), *A Brief and Qualitative Study Exploring the Reasons for Census coverage Error among Low Income Black Households*. Unpublished report, April 1987.

Hogan, H., (1992), "The 1990 Post-Enumeration Survey: Operations and New Estimates," *Proc. of the Surv. Res. Meth. Sec.*, Am. Stat. Assoc.

Martin, E., (1996), "Household Attachment and Survey Coverage," *Proceedings of the Survey Research Methods Section (American Statistical Association)*.

Robinson, J. G., Ahmed, B., Das Gupta, P., and Woodrow, K., (1993), "Estimation of Population Coverage in the 1990 United States Census Based on Demographic Analysis," *Journal of the American Statistical Association* **88**: 1061-1079.

Schwede, L. and Ellis, Y., (1994), "Exploring Associations between Subjective and Objective Assessments of Household Membership: The Living Situation Survey," *Proc. of the Surv. Res. Meth. Sec.*, Am. Stat. Assoc.

Sweet, E. M., (1994), "Roster Research Results from the Living Situation Survey," *Proceedings*, Annual Research Conference, Bureau of the Census.

Sweet, E. M., and Alberti, N. S., (1994), "Coverage Implications of Using the Term 'Usual Residence,'" *DSSD 2000 Census Memorandum Series #H-17*. Bureau of the Census.

Tourangeau, R., Shapiro, G., Kearney, A., and Ernst, L., (forthcoming), "Who Lives Here? Survey Undercoverage and Household Roster Questions," *Journal of Official Statistics*.

APPENDIX M

CONTACTS FOR THIS REPORT

Chapter One

Linda Mellgren
U.S. Department of Health and Human Services
Office of the Assistant Secretary for Planning and Evaluation
200 Independence Ave., SW, Room 405F
Washington, D.C. 20201

Wendy Taylor
U.S. Office of Management and Budget
725 17th Street, NW
New Executive Office Building, Room 10-235
Washington, D.C. 20503

Chapter Two

Carol Emig
Child Trends, Inc.
4301 Connecticut Ave., NW, Suite 100
Washington, D.C. 20008

Angela D. Greene
Child Trends, Inc.
4301 Connecticut Ave., NW, Suite 100
Washington, D.C. 20008

Chapter Three

Christine Bachrach
National Institute of Child Health and Human Development
6100 Executive Blvd., Room 8B13
Bethesda, MD 20892

Freya Sonenstein
The Urban Institute
2100 M Street, N.W.
Washington, D.C., 20037

Chapter Four

Randal Day
301C Hulbert Hall
Department of Human Development
Washington State University
Pullman, WA 99164

Jeff Evans
Chair, Data Collection Committee of the Forum
Demographic and Behavioral Sciences
National Institute for Child Health and Human Development
6100 Executive Blvd., Room 8B13

Michael Lamb
National Institute of Child Health and Human Development
BSA Building, Room 331
9190 Rockville Pike
Bethesda, MD 20814

William Marsiglio
Department of Sociology
University of Florida
P.O. Box 117330
Gainesville, FL 32611

Chapter Five

Andrew Cherlin
Johns Hopkins University
Department of Sociology
3400 North Charles Street
Baltimore, MD 20814

Jeanne E. Griffith
Director, Science Resources Studies Division
National Science Foundation
4101 Wilson Blvd., Room 905
Arlington, VA 22230

Chapter Six: Targets of Opportunity

Overall Coordination

Jeff Evans
Chair, Data Collection Committee of the Forum
Demographic and Behavioral Sciences
National Institute for Child Health and Human Development
6100 Executive Blvd., Room 8B13
Bethesda, MD 20892

BEST COPY AVAILABLE

Target of Opportunity Two: Indicators of Male Fertility and Fatherhood

Laura Lippman
Reporting Committee of the Forum
National Center for Education Statistics
Department of Education
555 New Jersey Ave., NW, Room 402N
Washington, D.C. 20208-5650

Jeff Evans
Chair, Data Collection Committee of the Forum
Demographic and Behavioral Sciences
National Institute for Child Health and Human Development
6100 Executive Blvd., Room 8B13
Bethesda, MD 20892

Randal Day
301C Hulbert Hall
Department of Human Development
Washington State University
Pullman, WA 99164

Brett Brown
Child Trends, Inc
4301 Connecticut Ave., NW, Suite 100
Washington, D.C. 20008

Kristin A. Moore
Child Trends, Inc
4301 Connecticut Ave., NW, Suite 100
Washington, D.C. 20008

Target of Opportunity Three: Collection of Data on Male Fertility
National Survey of Family Growth

William Mosher
National Center for Health Statistics
6525 Belcrest Road, Room 840
Hyattsville, MD 20782

Target of Opportunity Four: Better Measurement of Father Absence and Presence

Kristin A. Moore
Child Trends, Inc
4301 Connecticut Ave., NW, Suite 100
Washington, D.C. 20008

Lynne Casper
U.S. Department of Commerce
Bureau of the Census
Population Division
Washington, D.C. 20233-8800

Target of Opportunity Five: Understanding the Role of Father Involvement in Child Development and School Readiness
National Early Childhood Longitudinal Survey-Birth Cohort

Jerry West
National Center for Education Statistics
555 New Jersey Ave., NW, Room 417-C
Washington, D.C. 20208-5736

Target of Opportunity Six: The Transition from Adolescence to Adulthood

National Longitudinal Survey of Youth, '97

Mike Horrigan
Bureau of Labor Statistics
2 Massachusetts Avenue,
Room 4945
Washington, D.C. 20212

Target of Opportunity Seven: Developing a Better Understanding of the Meaning of Father Involvement
Early Head Start- Fathers Studies

Natasha Cabrera
National Institute of Child Health and Human Development
6100 Executive Blvd., Room 8B13
Bethesda, MD 20892

Michael Lamb
National Institute of Child Health and Human Development
BSA Building, Room 331
9190 Rockville Pike
Bethesda, MD 20814

BEST COPY AVAILABLE

Helen Raikes
Department of Health and Human Services
Administration on Children, Youth, and Families
Research, Demonstration and Evaluation Branch
Mary Switzer Building, Room 2130
330 C Street, S.W.
Washington, D.C., 20201

Louisa Tarullo
Department of Health and Human Services
Administration on Children, Youth, and Families
Research, Demonstration and Evaluation Branch
Mary Switzer Building, Room 2130
330 C Street, S.W.
Washington, D.C., 20201

Target of Opportunity Eight: Finding the Missing Men--Living Arrangements

Living Situation Survey

Betsy Martin
U.S. Department of Commerce
Bureau of the Census
Center for Survey Methods Research/Rm. 3133,
Bldg 4
4401 Suitland Road
Suitland, MD 20746

Target of Opportunity Nine: Finding the Missing Men--Special Populations

Criminal Justice System

Cynthia Nahabedian
National Institute of Justice
Office of Research and Evaluation
633 Indiana Ave. N.W., Room 303
Washington, D.C. 20531

Military Populations

Anita Lancaster
Deputy Director
Defense Manpower Data Center-Suite 400
1600 Wilson Blvd
Arlington, VA 22209

Target of Opportunity Ten: Expanding Data Collection Sources

Matt Stagner
Chair, State and Local Data Committee
of the Forum
U.S. Department of Health and Human Services
Ofc. of the Assistant Secretary for
Planning and Eval.
200 Independence Avenue, S.W. Room 450G
Washington, D.C., 20201

Linda Mellgren
U.S. Department of Health and Human Services
Office of the Assistant Secretary for
Planning and Evaluation
200 Independence Ave., SW, Rm 415F
Washington, D.C. 20201

BEST COPY AVAILABLE